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No. 615

EXHIBIT VOLUME.

TRANSCRIPT OF RECORD

UNITED STATES

COURT OF APPEALS

FIFTH CIRCUIT.

No. 16,140

GEORGE T. NISHIDA and JAMES E. NISHIDA d/b/a HILO DAIRY COMPANY OF KAUAI; RYOJU SOKEI, d/b/a SOKEI DAIRY, and FRED L. WALDRON, LIMITED,

Appellants,

versus

E. I. DuPONT de NEMOURS & COMPANY,

Appellee.

Appeals from the United States District Court for the Northern District of Mississippi.

(ORIGINAL RECORD RECEIVED JUN. 4/56.)

U. S. COURT OF APPEALS
FILED
JAN 25 1957
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CLERK

[P. 504 to Pl. 16]

10

Cattle

1946

July	11			J-1	350000				
Sept	16			J-5	40000				
	19			J-6	625000				
1947						1947			
Jul	28			C77	15000	Dec 31 1969	J17	300000	
May	31			C33	25000	Dec 31 1950	J19	30000	
Sept	30			C41	302200	Sept 30 1957	J30	30000	
Dec	31			C63	27500	Dec 31 1952	J37	21000	
						June 1	J40	21000	
1948						Dec 31	J41	96700	
Apr	30			C51	100000	" 31	J44	20000	
June	30			C59	112500	" 31	J41	17483	
1949									
Jan	31	Calf Breeder		C73	6500				
Dec	31			J24	670000				
1950									
Feb	28			C94	100000				
Mar	31			C101	1650				
Apr	30			C103	320000				
Dec	31			C115	56000				
Nov	30			C117	440000				
Dec	31			C119	400000				
1951									
Jan	31			C21	21600				

Of Hans Jacobsen for Hilo Dairy Co

O.K. for Fred L. Wilson

C. Nils Tavares

Machine was evidence Exhibit #1 - Hilo Exhibit #1 in 1954

Jack Schaefer
Reporter

GENERAL LEDGER

ACCOUNT Cattle

ACCOUNT NO. 61

SHEET NO.

STANDARD FORM C16 PRINTED IN U.S.A.

CHARLES R. HADLEY CO. PATHFINDERS LOS ANGELES, SAN FRANCISCO, NEW YORK, CHICAGO

REG. U.S. PAT. OFF. STANDARD GENERAL LEDGER

DATE 19 53	DESCRIPTION	POSTING REF.	CHARGES	✓	CREDITS	✓	DR. OR CR.	BALANCE	✓
Jan 1	Balance						Dr	7521	60
Mar 31	Maidas Mill Farm	C-16	3750	00					
June 30	Maidas Mill Farm	C19	600	00				11871	60
Dec 31		J-4			2000	00		9871	60

STANDARD FORM C16

Marked as exhibit for identification
Plff's Exhibit #2—
6/9/54
Edith Montalvo
Reporter

SUMMARY OF COWS

PURCHASED SINCE OPENING BUSINESS

JULY 1, 1946

Date Purchased:	Cost:	Total Heads:	Remainder Feb. 1952:
1946	$ 10,150.00	49	17
1947	3,697.00	33	5
1948	2,125.00	14	2
1949	6,745.00	21	20
1950	13,170.50	49	36
	$ 35,887.50	166	80

Purchased Milk Cows:	80
Raised Heifers	21
Total Milk Cows 2/52	101
M/Cows death	51
M/Cows remainder	50
Death Milk Cows	51
	~~45~~
Heifers	6
Total M/cows & Heifers:	51

Mehida ass'n Pltf's exhibit
also Pltf's Exhibit - 6/10/54 (D-3)

Pltf's Exhibit 3 - Identification 2-sheets
6/9/54:

CATTLE PURCHASED

1946 - 1950

Year Purchased:	Cost:	Quantity:	Firms:
1946	$ 3,500.00	22	Kilauea Plantation Co.
	400.00	2	James Nishida
	6,250.00	25	Herbert Campos
	10,150.00	49	
1947	50.00	1	James Nishida
	250.00	1	Ishizaki
	3,022.00	29	Kilauea Plantation Co.
	275.00	2	Aguiar & Son
	3,697.00	33	
1948	1,000.00		
	1,125.00	14	Koloa Plantation Co.
	2,125.00	14	
1949	45.00	1	University of Hawaii
	6,700.00	20	Herbert Campos
	6,745.00	21	
1950	1,000.00	4	Wm. Hyde Rice
	3,200.00	21	Wm. Hyde Rice
	560.00	4	Joe Souza
	4,400.00	10	M. Costa Jr.
	4,000.00	10	Flechers
	13,170.50	49	
	$ 35,887.50	166	

Nishuda vs. du Pont, et als
also Pltf's Exhibit D-3 6/10/54 Bkg
Def's Ex #3, Photograph 2 sheets (D)

11-22-55
Dfts Ex. 3
Rec'd

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U. S. District Court: Northern Dist. of Miss.

_____ Division

Civil No. _____ Pltf. _____ Dft. _____

Exhibit No. _____

Witness _____

Date _____ Plntf _____

_____

Official Reporter

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L. L. FORD
ENTERPRISE, ALABAMA

LYMAN REED
CARUTHERSVILLE, MISSOURI

1447 41

-2

L. L. FORD ASSOCIATES

ENGINEERS AND BUILDERS OF
SOLVENT EXTRACTION EQUIPMENT

Caruthersville,
October 11,1949

Mr.F.G.Low,
DuPont,
Wilmington.

Dear Mr.Low:

Mr.Ford and I visited Mr.Roach at Plainfield last week for a final check on Trichlorethylene. All previous information was favorable. We decided, after the visit to Roach, to burn our bridges and proceed.

Mr.Roach told us that, according to your reports to him, Tri residue in oil was about 35 parts in a million. We are now quoting that report and hope it is not wrong. If it is correct, there remains no basis for complaint against Trichlorethylene.

We are starting up the new mill at Belzoni, Mississippi, this week. Initially we shall use Hexane but later plan tointroduce Tri t o prove our point that in all departments Tri equals or betters Hexane until the point of safety arrives, and then there is no comparison. Of course, you probably know that the safety factor has about become factor number one. Another Hexane mill blew in Columbus, Ohio a few weeks ago.

I wish you would give us what information you have on Tri. We are sticking our necks out and we need help. Everywhere we run into suppositions, hearsay, guesses. Nothing ever factual. So now it is time for all hands to stand up and be counted we think. We are going to round up all facts available and go ahead, and damn the torpedoes. If Mr.Roach's solvent loss is less than half of one percent and residue under fifty parts in a million, we can certainly do it with ease. Mr.Ford believes he can make the thing foolproof, and I do too. It is done in the stripping column and is not too difficult.

Please tell us what we can shoot at and how we can determine just exactly what the residues are.

Cordially,
Lyman Reed

R-mp

Date 11-28-65 Exhibit No. L-47
Cov't. ( )
Pl. ( ) Witness Ford (Cross)
Def. ( )
Ivy McKinnie
Reporter

If G. - Dept
Creosote - Lumber Dept
GGL

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Chemical Safety Data Sheet SD-14

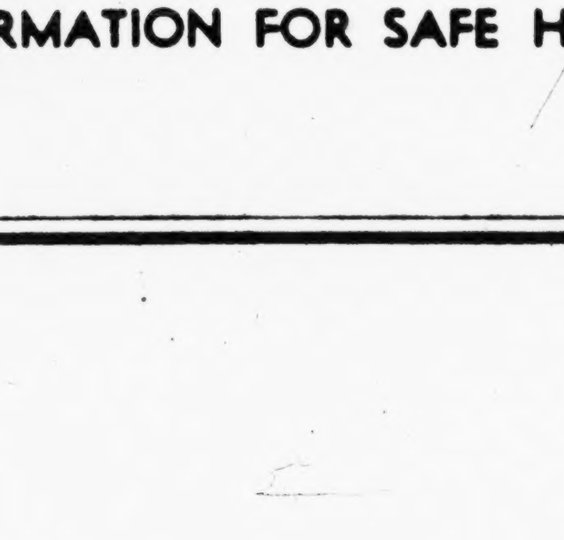
ADOPTED 1947

TRICHLOROETHYLENE

●

PROPERTIES

ESSENTIAL INFORMATION FOR SAFE HANDLING AND USE



Manufacturing Chemists' Association of the United States
608 Woodward Building, Washington 5, D. C.

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Manual Sheet SD-14

Chemical Safety Data Sheet

TRICHLOROETHYLENE

Adopted July, 1947

1. NAME

Chemical Name: Trichloroethylene
Common Names: Trichlorethylene, Ethylene Trichloride
Formula: $ClHC:CCl_2$

2. PROPERTIES

2.1 **Grades.** Technical or Dry Cleaning, Degreasing, and Extraction.

2.2 **Important Physical and Chemical Properties**

Color: Clear, colorless liquid, unless marked with an identifying dye, e.g., Degreasing grade.
Odor: Somewhat similar to odor of chloroform.
Vapor Density (Air = 1): 4.54
Boiling Point (760 mm): 86.9°C (188°F)
Melting Point: −86.4°C (−124°F)
Explosive Limits: Not flammable or explosive at ordinary room temperatures but moderately flammable at higher temperatures.
Ignition Temperature: 410°C (770°F)
Corrosive: Suitably stabilized trichloroethylene may be used in the presence of air, water and light with any of the common construction metals at temperatures up to 120°C (248°F).
Dangerously Reactive: No, except that strong alkalies, such as caustic soda, may react with trichloroethylene to form explosive mixtures (dichloracetylene). Weaker alkalies, such as trisodium phosphate, may be used with safety.
Hygroscopic: No.
Light Sensitive: See "Corrosive" above.
Specific Gravity at 20° 4°C (68° 39°F) (Water = 1): 1.464

VAPOR PRESSURE

Temperature °C	Temperature °F	Vapor Pressure mm Mercury
0	32	19.9
10	50	35.7
20	68	57.8
30.5	87	93.7
40	104	146.8
50	122	212
60	140	305.7
86.9	188	760

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2.3 **Hazardous Properties**

2.3.1 *HEALTH HAZARDS.* (See 8. Health Hazards and Their Control.) Trichloroethylene is toxic by inhalation, by prolonged or repeated contact with the skin or mucous membrane, or when taken by mouth.

2.3.2 *FIRE HAZARD* (See 6.2 Fire and Explosion Hazards)

2.3.2.1 The fire hazard is very small. Trichloroethylene is classed as non-flammable at ordinary temperatures, and moderately flammable at higher temperatures.

2.3.2.2 Trichloroethylene vapor exposed to high temperatures, such as occur in open flames and open electric heaters, may be decomposed to toxic and corrosive substances. (See 6.2.3)

3. USUAL SHIPPING CONTAINERS

Trichloroethylene is not regulated by the Interstate Commerce Commission.

3.1 **Type and Size**

Tank cars.

Metal drums, ICC Spec. 17E, 55 gallon maximum.

Metal drums, Consolidated Freight Classification, Rule 40, Section 5C.

3.2 **Label or Identification**

3.2.1 Each container (including tank cars) should carry an identifying label or stencil.

3.2.2 The caution label to be placed on each container under the agreement between the United States Public Health Service and the producers is given below.

3.2.3 In addition to the caution label, the label on each container should bear any label warnings required by statutes, regulations or ordinances.

3.3 **Disposal and Return Precautions**

3.3.1 *TANK CARS.* Return empty tank cars as promptly as possible in accordance with instructions received from the shipper. Shipper's routing instructions should always be followed strictly.

3.3.2 *DRUMS.* Before returning shipping containers to suppliers, observe usual precautions regarding complete drainage of contents and properly close all openings.

4. UNLOADING AND EMPTYING

4.1 **Health Hazards.** (See 8. Health Hazards and Their Control). Trichloroethylene is toxic by inhalation, by prolonged or repeated contact with the skin or mucous membrane, or when taken by mouth.

4.2 **Fire Hazard.** The fire hazard is small. (See 6.2 Fire and Explosion Hazards.)

4.3 **Tank Cars**

4.3.1 Unloading operations should be conducted by carefully instructed, reliable employees under adequate supervision, (see 6.4).

TRICHLOROETHYLENE

WARNING! VOLATILE SOLVENT

Use with adequate ventilation.

Avoid prolonged or repeated breathing of vapor.

Avoid prolonged or repeated contact with skin.

Do not take internally.

4.3.2 See that the car is spotted accurately and track is level.

4.3.3 Derails should be placed at one or both ends of the unloading track approximately one car-length from the car being unloaded, unless the car is protected by a closed and locked switch or gate.

4.3.4 The hand-brake should be set and standard rail clamps should be installed to block the wheels at the time of unloading. Metal "caution" signs should be fastened to the track. Signs should be 12" x 15", painted light blue. Use the legend "STOP TANK CAR CONNECTED", with the letters in "STOP" four inches high. Signs are available from safety equipment dealers.

4.3.5 If the unloading track is provided with an electric trolley wire, the current should be turned off before unloading is started.

4.3.6 Shipper's instructions for unloading should always be followed, and all caution markings on both sides of tank or dome should be read and observed.

4.3.7 In the event of a leak in the tank car or the fittings that cannot be stopped by following the previous instructions from the supplier or by simple adjustment or tightening, immediately telephone or wire the supplier for further instructions.

4.4 Drums

4.4.1 Drums should be unloaded carefully to prevent damage. Do not drop or bump.

4.4.2 Each shipment should be examined carefully for leaking drums. If any are found, they should be handled with particular care by turning leak up to prevent further leakage, and should be removed to a safe place where the leakage can be stopped by tightening the plug or by some other approved method.

4.4.3 Before emptying contents, substantially support the drums and block them to prevent movement.

4.4.4 A satisfactory method of removing trichloroethylene from drums is by means of a rotary pump. If emptied by gravity, the drum should be placed on a rack and a faucet inserted in the end bung. Faucets should have short shanks threaded with Briggs standard straight iron pipe threads. A resilient gasket of suitable material should be used to insure a tight fit. Bung opening and faucet must have the same type and number of threads per inch (M.C.A. Manual Sheet D-32). Protect workmen from vapor and liquid. (See 8.3 Personal Protective Equipment.)

4.4.5 To remove the body plug, place bung up, and use a bung or plug wrench. Stand to one side and face away during the operation. After plug starts, give one full turn. If accumulated internal pressure vents, allow it to reduce to atmospheric pressure; then only should the plug be loosened further or removed.

5. STORAGE

5.1 Hazards.

5.1.1 *HEALTH HAZARDS.* (See 8. Health Hazards and Their Control). Trichloroethylene is toxic by inhalation, by prolonged or repeated contact with the skin or mucous membrane, or when taken by mouth.

5.1.2 *FIRE HAZARD.* The fire hazard is small. (See 6.2 Fire and Explosion Hazards.)

5.1.3 *CORROSION.* Under normal conditions, trichloroethylene may be stored satisfactorily in galvanized iron, black iron or steel equipment. (See 2.2 Important Physical and Chemical Properties.)

5.1.4 *VOLATILITY.* Trichloroethylene is more volatile than water. (See 2.2 Important Physical and Chemical Properties.)

5.2 Conditions of Storage

5.2.1 Each tank, either vertical or horizontal, should have a top and bottom manhole at least 22 inches in diameter, in addition to filling, vent, and measuring device openings, which should be 2 inch flanged connections in the top of the tank. A 2 inch or $2\frac{1}{2}$ inch bottom outlet should be provided for use as a drain during clean-out operations. Vertical tanks should be of the closed top design, and the top should be caulked or welded vapor-tight.

5.2.2 Each storage tank should have a vent large enough (usually 2 inch) to permit the escape of vapor during filling. Vents from indoor tanks should terminate outdoors, in such a location that escaping vapor will not contaminate any work space air. The vent is usually protected against entry of moist air by being extended down over the side of the tank into a chamber filled with lump calcium chloride for removal of moisture in the air. It is recommended that a tee be provided in this line above the dryer so that a mercury seal $\frac{1}{2}$ inch deep

can be installed as a safety vent in case the dryer plugs from excess moisture. Do not allow mercury to be spilled in any work space. Avoid open mercury surfaces in work spaces.

5.2.3 The storage tank should be grounded adequately to discharge the static electricity which builds up from pumping any dry liquid. (See NFPA pamphlet "Static Electricity").

5.2.4 Drums of trichloroethylene should be stored in a cool place, bung up. To prevent evaporation losses, bungs should be kept tight at all times.

5.2.5 Ventilation should be provided at the floor level, as well as in the usual higher locations. Note that vapor is 4.54 times heavier than air. (See 2.2.) Do not store in pits, depressions, basements, or unventilated areas.

6. HANDLING

6.1 **Health Hazards.** (See 8. Health Hazards and Their Control). Trichloroethylene is toxic by inhalation, by prolonged or repeated contact with the skin or mucous membrane, or when taken by mouth.

6.2 Fire and Explosion Hazards

6.2.1 The fire hazard is very small. Trichloroethylene is classed as non-flammable at ordinary temperatures, and moderately flammable at higher temperatures.

6.2.2 Trichloroethylene is not flammable or explosive at ordinary room temperatures but is moderately flammable at higher temperatures (32°C; 90°F, and upward) under conditions in which the concentration of vapor in air is comparatively high (about 15 per cent by volume) and there is an intense source of ignition such as an electric arc. A higher temperature (about 50°C; 122°F, and upward, depending upon conditions) is required to produce moderately flammable vapor-air mixtures which can be ignited by a less intense source of ignition such as ordinary sparks and flames.

6.2.3 In the presence of an excess of water, or at very high temperatures, such as occur in open flames, trichloroethylene may decompose to give hydrochloric acid and other products.

6.3 Spills and Leakage

6.3.1 Spills should be cleaned up immediately. Employees performing this work should wear adequate personal protective equipment. (See 8.3 Personal Protective Equipment.)

6.3.2 Rags or mops wet with trichloroethylene should be placed in closed containers or in a safe place out of doors until they can be dried safely.

6.3.3 Clothing wet with trichloroethylene should be removed immediately. The clothing should not be used again until dry and free of the odor of trichloroethylene. Dry clothing out of doors or in a properly ventilated area.

6.4 Employee Education and Training (See 8.2.3)

6.4.1 Safety in handling trichloroethylene (and other hazardous or corrosive chemical products) depends upon the effectiveness of employee education, training and supervision.

6.4.2 The education and training of the employees to work safely and to use the personal protective equipment or other safeguards provided for them is a responsibility of supervision.

6.4.3 Employee education and training should emphasize the need of handling trichloroethylene according to the methods outlined in this manual.

6.4.4 Before being placed on the job, new employees should be instructed thoroughly in the proper handling of trichloroethylene. Older employees should be reinstructed periodically. Each employee should be instructed not to use trichloroethylene for personal cleaning purposes.

6.4.5 Each employee should know the location, purpose, and maintenance of personal protective equipment and be thoroughly trained when and how to use it (see 8.3).

6.4.6 Each employee should know the location of safety showers, bubbler drinking fountains for flushing the eyes, and hose lines.

6.4.7 Only reliable, dependable, and properly trained employees should be given the responsibility of operating valves which control the movement of trichloroethylene to and from storage tanks, tank cars, and containers.

6.4.8 Employees should be trained to report to the proper authority all suspected leaks or equipment failures, and any signs of illness or skin difficulties.

6.4.9 Each employee should know what to do in an emergency (see 6.3) and in first aid measures (see 8.4), and should realize the necessity for the prompt application of first aid

in case of contact with trichloroethylene or exposure to the vapor.

6.5 **Personal Protective Equipment.** Equipment for the protection of individuals handling trichloroethylene is described in 8.3 Personal Protective Equipment.

6.6 **Engineering Controls**

6.6.1 *LOCATION OF PROCESS.* Processes should not be located near open flames, open electric heaters or high temperature operations, since trichloroethylene vapor exposed to such high temperatures may be decomposed to toxic and corrosive substances. (See 2.3.2.2.)

6.6.2 *DESIGN OF EQUIPMENT.* Processes should be designed so that the operator is not exposed to direct contact with trichloroethylene or its vapor. The technical problems of designing equipment, providing adequate ventilation and formulating operational procedures which promise maximum security and economy, can be handled best by engineers and safety experts. The manufacturers of trichloroethylene, and of the equipment in which it is to be used, are always prepared to help with these problems, and to assist in maintaining safe working conditions. In most States, authoritative advice and assistance may also be obtained from the industrial hygiene division of the State health department, or from the labor department.

6.6.3 *SYSTEM TYPES.* Depending upon the application, trichloroethylene may be used in any one of the three systems described below. Any one of the three system types may be adapted to some other various applications of trichloroethylene.

6.6.3.1 For the vapor degreasing of metals, equipment manufacturers have designed special open type machines in which the solvent liquid and vapor are controlled by balanced heat input and cooling capacity. Where vapor degreasing units are installed in locations free from draft conditions and used to clean free draining material, an exhaust is not ordinarily required. However, where either the location or the nature of the work handled leads to more than normal diffusion losses or to a substantial dragout, an exhaust system should be installed.

6.6.3.2 Partially closed equipment has been designed for the use of trichloroethylene in the dry cleaning industry. Such equipment, however, exhausts the greater part of the solvent vapor to the outside atmosphere, thereby minimizing exposure of the worker. Proper design of the machine insures against seepage of solvent liquid and vapor during the cleaning operation. Partially closed systems are likewise adapted to metal degreasing operations in some conveyorized vapor units.

6.6.3.3 Extraction equipment designed for trichloroethylene is an example of a closed system design.

6.6.4 *VAPOR MEASUREMENTS*

6.6.4.1 When checking concentrations of trichloroethylene vapor in the atmosphere, care is required to make certain that the sample is representative of the air breathed by the workers, and of the daily fluctuations which may occur.

6.6.4.2 Continuous recording instruments, arranged to give audible and visible signals when a predetermined concentration of trichloroethylene vapor in air is reached, are available.

6.6.4.3 Testing methods are described in the following references:

Flame Test Method, Using the Halide Torch:
V. A. Stenger et al., Ind. Eng. Chem., Anal. Ed., *11*:121 (1939)
F. H. Goldman, J. Ind. Hyg. & Toxicol., *25*:181 (1943)

Thermal Decomposition Method:
J. C. Olsen et al., Ind. Eng. Chem., Anal. Ed., *8*:260 (1936)
H. F. Smyth, Ind. Eng. Chem., Anal. Ed., *8*:379 (1936)
H. Elkins et al., J. Ind. Hyg. & Toxicol., *19*:474 (1937)
B. D. Tebbens, J. Ind. Hyg. & Toxicol., *19*:204 (1937)
W. F. von Oettingen, J. Ind. Hyg. & Toxicol., *19*:413 (1937)

Vapor Pressure Method:
C. Couchman et al., J. Ind. Hyg. & Toxicol., *21*:256 (1939)
K. Kay et al., J. Ind. Hyg. & Toxicol., *21*:264 (1939)
L. Silverman et al., J. Ind. Hyg. & Toxicol., *21*:270 (1939)

Gas Interferometer Method:
F. A. Patty, J. Ind. Hyg. & Toxicol., *21*:469 (1939)
G. Harrold et al., J. Ind. Hyg. & Toxicol., *21*:491 (1939)

Adsorption Method:
W. Cook et al., J. Ind Hyg. & Toxicol., *18*:194 (1936)
L. Cralley et al., J. Ind. Hyg. & Toxicol., *25*:172 (1943)

Photometric Method:
V. F. Hanson, Ind. Eng. Chem., Anal. Ed., *13*:119 (1941)

Colorimetric Method:
H. M. Barrett, J. Ind. Hyg. & Toxicol., *18*:341 (1936)

See also American Standards Association, "Allowable Concentration of Trichloroethylene", Approved Aug. 6, 1946, Z37.19—1946. (200 ppm).

6.7 Ventilation

6.7.1 General ventilation should be adequate for processes conducted in closed or partially closed equipment, but mechanical exhaust ventilation, preferably of the downdraft type, may be provided for clean-out and other special operations. Open top vapor degreasers, however, should be provided with suitable baffles and otherwise protected from drafts to avoid entrainment of trichloroethylene vapors. Where equipment is located in pits or depressions, separate mechanical exhaust ventilation should be installed at the lowest level.

6.7.2 Intakes to exhaust ventilating systems should be as close as possible to the point where the vapor escapes or to the source of contamination and designed to draw the vapor away from the operator but not across his face.

6.8 Tank and Equipment Cleaning and Repairs

6.8.1 The hazardous nature of tank and equipment inspection, cleaning, or repairs requires that the foreman and crew be selected, trained, and drilled carefully. They should be fully familiar with the hazards, and the safeguards necessary for the safe performance of the work.

6.8.2 Wherever possible, enclosures should be cleaned from the outside, using clean-out doors.

6.8.3 All pipe lines into or out of the tank or other apparatus should be disconnected, preferably by removing a complete small section and providing a blank flange on the open end to protect against human error and unsuspected leaks. Valves, cocks, and blank flanges in the pipe line should not be relied upon.

6.8.4 Danger signs should be placed suitably to indicate when workmen are in the tank or other apparatus.

6.8.5 Be sure the tank can be left by the original entrance.

6.8.6 Lock all electrical switches in the off position, remove belts, disconnect agitators and completely safeguard against accidental starting of any agitating equipment or other moving parts located inside or adjacent to the tank entrance.

6.8.7 Before entering a tank and during the course of the work, tests should be made by a qualified person to determine if further washing is necessary; to make sure that no oxygen deficiency exists and that no harmful gases are present. Before directing men to enter a tank, an inspection of the interior should be made by the foreman who should be equipped with a hose-type gas mask, life belt, and life line; another person should be on guard during the inspection.

6.8.8 Proper personal protective equipment should be worn by anyone entering a tank for inspection, cleaning, or repairs (see 8.3).

6.8.9 One man on the outside of the tank should keep the men in the tank under constant observation, and at least two men should be available to aid in rescue if any of those in the tank are overcome.

6.8.10 A supplied air respirator or self-contained breathing apparatus, together with rescue harness and life line, should always be located outside the tank entrance for rescue purposes, regardless of the type of respiratory equipment or air supply which is provided for employees inside the tank.

6.8.11 In addition to protecting the workmen actually engaged in cleaning and repairing the tank, attention should be paid to the protection of workers in nearby areas.

6.8.12 Cleaning or making repairs inside a tank may be hazardous even though the tank contained a non-toxic, non-flammable material. In addition to the precautions generally recommended for tank work, such as procurement of written approval of supervision, testing for oxygen deficiency, use of rescue harness or life belt and life line, provision of grounded equipment in good condition for portable electric lights and power tools, and stationing of thoroughly trained "watchers" outside of the tank entrance, important additional precautions are recommended as follows:

(a) Before entering the tank, it should be emptied, dried and cleared of trichloroethylene vapor.

(b) Since trichloroethylene vapor is 4.54 times heavier than air, the tank may be ventilated through openings at the bottom, or by mechanical exhaust with in-

take at the lowest part of the enclosure.

(c) Ventilation should be continued during cleaning, repairing, or inspection.

6.9 Repackaging and Blending

6.9.1 Repackaging should be done with adequate attention to the health hazards involved. (See 8. Health Hazards and Their Control.)

6.9.2 A label on small containers may be required by State statutes, regulations, or ordinances. (See 3.2 Label or Identification.)

6.9.3 Trichloroethylene may be added to flammable solvents to form less flammable or relatively non-flammable mixtures. It should be noted, however, if the flammable solvent is less volatile than trichloroethylene, the mixture will tend to become more and more flammable on evaporation. If the flammable portion is more volatile than trichloroethylene, the vapor may be highly flammable although the liquid mixture is non-flammable.

6.9.4 When trichloroethylene is added to other solvents, the health hazards of the various constituents of the mixture must be given careful consideration.

6.9.5 The addition of other products to trichloroethylene may affect its corrosive properties.

7. WASTE DISPOSAL

7.1 Residue may be poured on dry sand, earth, or ashes at a safe distance from occupied areas and allowed to evaporate into the atmosphere.

8. HEALTH HAZARDS AND THEIR CONTROL

This section includes not only recognized first aid procedures and information of interest to the layman, but also suggestions which may be of value to the attending physician.

8.1 Hazards

8.1.1 Trichloroethylene is toxic by inhalation, by contact with skin or mucous membranes or by oral intake. Prolonged, excessive, or repeated exposures to the product in any form are hazardous.

8.1.2 The signs and symptoms of trichloroethylene poisoning are the result of injury to the nervous system, lungs, skin and digestive system. In contrast to chloroform and carbon tetrachloride, injuries to the liver and kidneys are rare. The clinical picture varies with the type of exposure and the amount of the chemical product which is absorbed either at one time or at repeated times.

8.1.3 Symptoms of excessive exposure include: loss of appetite, sleeplessness, shortness of breath, cough, vomiting, pains in the abdomen, and jaundice. In a few cases delirium, disturbances of vision, or convulsions may be noted.

8.1.4 *TOXIC EFFECTS AFTER INHALATION.* The generally accepted maximum allowable concentration in air is 200 ppm by volume for an 8-hour day. When exposed to higher concentrations of vapor, workers usually complain of tears and burning of the eyes and irritation of the nose and throat. There may also be nausea, vomiting, drowsiness, an attitude of irresponsibility and even an appearance resembling that of alcoholic intoxication. Like other chlorinated hydrocarbons, trichloroethylene acts as an anesthetic. (See 6.2.3)

8.1.4.1 *Acute Poisoning*

8.1.4.1.1 When the worker inhales an excessive amount of vapor within a short period of time, acute poisoning may occur. The first reaction is irritation of eyes, nose and throat, fullness in the head with mental confusion. There may be dizziness, stupefaction, nausea, and vomiting. High concentrations of trichloroethylene prevent the proper utilization by the tissues of the oxygen in the blood. When this condition is present, physical activity may lead to severe or even fatal circulatory failure. If the workman is not immediately removed from the vapor he may become unconscious and serious injury can occur.

8.1.4.1.2 Some conditions under which acute poisoning may occur are as follows:

(a) By accident, such as equipment failure,

(b) When workers enter enclosures or tanks without having taken adequate precautions (see 6.3),

(c) When trichloroethylene is handled carelessly (see 6.4).

8.1.4.2 *Subacute Poisoning*

8.1.4.2.1 Subacute trichloroethylene poisoning may result from prolonged or re-

peated work in an atmosphere containing high concentrations of trichloroethylene, but under conditions in which the amount absorbed is not sufficient to cause loss of consciousness.

8.1.4.2.2 Workers with subacute poisoning may become acutely ill and suffer from headache, fatigue, nausea, vomiting, mental confusion and visual disturbances. There may be nerve paralysis affecting such structures as the nerves to the face or extremities. Sometimes there is delirium. In some cases after repeated exposure a craving seems to develop so that the subject seeks further exposure and becomes an "addict". In other cases there seems to be a definite action on the nerve supply to the heart causing a condition known as fibrillation. There is reason to believe that, in some cases at least, this has resulted fatally.

8.1.4.2.3 Some conditions under which subacute poisoning may occur in employees are as follows:

(a) Where the ventilation is inadequate, resulting in high concentrations of trichloroethylene,

(b) Where the vapor concentrations are high intermittently, due to faulty handling of the liquid,

(c) Failure of the individual to observe precautionary measures,

(d) When an acute exposure of high concentrations is superimposed upon the prolonged exposure to mild concentrations, circulatory failure can occur.

8.1.5 *TOXIC EFFECTS FROM EXTERNAL CONTACT*

8.1.5.1 *Skin.* Trichloroethylene may cause dermatitis after repeated or prolonged contact with the skin, as occurs in prolonged or repeated handling of rags wet with the chemical product, dipping hands into the liquid, and wearing clothing saturated with it. Reddening, burning and, rarely, blisters may follow such exposure. In certain rare cases, the dermatitis may be caused by hypersensitivity to trichloroethylene. The skin becomes rough, red and dry due to the removal of skin oils. It cracks easily and is readily susceptible to infection. The skin has a chapped appearance.

8.1.5.2 *Eyes.* Trichloroethylene may enter the eyes either as a vapor or a liquid (spray or splash). The resultant irritation produces lacrimation, burning and other symptoms of inflammation. It can cause serious eye damage.

8.1.6 *TOXIC EFFECTS AFTER ORAL INTAKE.* The initial symptoms after toxic amounts of trichloroethylene are taken by mouth are those of irritation of the gastrointestinal tract, such as nausea, vomiting, diarrhea with bloody stools. The patient may become rapidly drowsy and later unconscious accompanied by a stopping of kidney functions. These may be followed by the general symptoms of poisoning enumerated above.

8.2 Prevention and Control

8.2.1 *VENTILATION*

8.2.1.1 The most important factor in prevention of toxic effects is to have sufficient ventilation to keep the concentration of vapor in the air below 200 ppm. The odor of trichloroethylene is distinct and noticeable even in relatively safe concentrations.

8.2.2 *STORAGE AND LABELING.* Containers should be labeled properly and closed tightly to minimize the danger of evaporation and spillage.

8.2.3 *EMPLOYEE EDUCATION* (See 6.4 Employee Education and Training)

8.2.3.1 Employees should be instructed to report any signs or symptoms of a substandard physical condition and receive medical attention.

8.2.3.2 Those working regularly with trichloroethylene may well be provided with a folder explaining the dangerous properties of this material and a statement of proper precautions to observe.

8.2.4 *PREPLACEMENT PHYSICAL EXAMINATIONS*

Certain individuals have been found who are unduly susceptible to various chlorinated hydrocarbons, as shown by previous experiences. The exposure of such individuals can be minimized by a careful preplacement physical examination. Exposures to trichloroethylene even in concentrations known to be non-hazardous to normal individuals should be prohibited in the following cases:

(a) Alcoholics,

(b) Exceedingly fleshy individuals,

(c) Undernourished individuals,

(d) Those with pulmonary diseases, stomach ulcers, high blood pressure, diseases of the liver, kidney, or heart, and

(e) Those suffering from paralysis, convulsive seizures and highly nervous states.

8.2.5 *PERIODIC PHYSICAL EXAMINATIONS.* Employees who are exposed regularly to trichloroethylene should be examined, at least semiannually, by a physician acquainted with the occupational hazards involved. Physical examinations should be required also when any symptoms of poisoning such as enumerated above are present in employees. Discovery of symptoms of trichloroethylene poisoning may indicate some defect in operation. This would serve as an indication to examine other exposed employees for early signs of poisoning.

8.3 Personal Protective Equipment

8.3.1 Personal equipment should not be used as a substitute for good, safe, working conditions nor for adequate ventilation. Such equipment may protect the individual wearing it while others in the room may be exposed to high concentrations of vapor. Equipment requires regular inspection, cleaning and replacement. This is especially true of industrial gas masks, since the canister contents become exhausted. The correct use of personal protective equipment requires education of the worker and careful supervision whenever such equipment is utilized. (See 6.4 Employee Education and Training.)

8.3.2 Employees who may be subjected to severe exposures of trichloroethylene vapor as in tank cleaning and repairs (see 6.8), in intermittent operations where general ventilation is not practical, in cases of failure of piping or equipment, and in cleaning up spills, should be provided when indicated with proper eye and respiratory protection as follows:

(a) Suitable gas-tight chemical safety goggles,

(b) Rescue harness and life line for those entering a tank or enclosed storage space. An outside attendant should maintain constant observation (see 6.8 Tank and Equipment Cleaning and Repairs),

(c) Hose masks with hose inlet in vapor-free atmosphere, or

Air-line masks with proper reducing valve and filter suitable for use where conditions will permit safe escape in case of failure of the compressed air supply, or

Self-contained breathing equipment with stored oxygen or air, which allows greater mobility but requires highly trained men.

(d) Industrial gas masks, approved by the United States Bureau of Mines with canisters approved for use in trichloroethylene vapor, should be used only when it is certain that the concentration of vapor is less than 2 per cent (20,000 ppm) and there is no atmospheric oxygen deficiency, and then only for exposures not exceeding one-half hour.

8.3.3 To prevent dermatitis or other effects of direct contact with trichloroethylene with the skin, employees should be provided with:

(a) Gloves and aprons fabricated from, or impregnated with, polyvinyl alcohol plastics or neoprene,

(b) Acid-type goggles where there is danger of splashing.

CAUTION: *Protective creams can not be relied upon to afford adequate protection.*

8.3.4 Facilities for personal cleanliness should be provided and time allowed for thorough washing before lunch and at the end of the work day.

8.3.5 Careful cleansing with mild soap, followed by the use of an oily cream containing lanolin to replace skin oils which may have been dissolved by trichloroethylene, is an important aid in preventing dermatitis.

8.3.6 Reliable safety equipment manufacturers can supply appropriate protective equipment if they are informed accurately of the particular product in use.

8.4 First Aid and Medical Treatment

8.4.1 *GENERAL PRINCIPLES*

8.4.1.1 Most important in the case of any poisoning is quick removal from exposure. In the case of trichloroethylene poisoning, this means first removing the patient from the contaminated atmosphere and, insofar as possible, removing the trichloroethylene from the patient's respiratory tract, skin, or gastro-intestinal tract.

8.4.1.2 Give the patient fresh air by moving him to a well ventilated room and by dispersing any crowd. If breathing has ceased, start artificial respiration at once.

PHYSICAL PROPERTIES
of
DU PONT CHLORINATED HYDROCARBONS

—	Methylene Chloride	Chloroform	Trichlor-ethylene	Perchlor-ethylene
Chemical Formula	CH_2Cl_2	$CHCl_3$	$CHCl{=}CCl_2$	$CCl_2{=}CCl_2$
Molecular Weight	84.94	119.39	131.40	165.85
Boiling Point (760 mm.) °C.	39.8	61.2	86.9	121.2
°F.	103.6	142.2	188.4	250.2
Freezing Point °C.	−96.7	−63.5	−86.4	−22.35
°F.	−142.1	−82.3	−123.5	−8.2
Steam Distn. Point (1 atm.) °C.	38.3	56.0	73.2	87.7
°F.	100.9	132.8	163.8	189.9
Solvent: Water Ratio, by wt.	66.3:1	34.1:1	13.4:1	5.32:1
Latent Heat of Vaporization (B.P.) C.H.U. = cal./g.	78.7	59.3	57.2	50.0
B.T.U./lb.	141.7	106.7	103.0	90.0
Specific Heat Liquid (20°C.)	0.276	0.234	0.225	0.205
Vapor (Cp) (1 atm.) cal./g./°C. or B.T.U./lb./°F.	0.155	0.142	0.156	0.146
	40°C.	61.2°C.	80°C.	100°C.
Critical Temperature °C.	245.0	262.9	271.0	347.1
°F.	473.0	505.2	519.8	656.8
Critical Pressure, atm.	60.9	53.8	49.5	—
Thermal Conductivity Liquid (20°C.)	0.0920	0.0751	0.0801	0.0732
Vapor (B.P.) B.T.U./hr. (sq. ft.) (°F./ft.)	0.00438	0.00455	0.00482	0.00505
Specific Gravity (20°/4°C.)	1.326	1.489	1.464	1.623
Pounds per Gal. (20°C.)	11.07	12.43	12.30 (15°C.)	13.55
Coefficient of Cubical Expansion —Av./°C. Liquid	0.00137	0.00129	0.00117	0.00102
	0°–40°C.	0°–40°C.	0°–40°C.	0°–25°C.
Vapor Density g./liter	3.30	4.36	4.45	5.22
(B.P., 760 mm.) lb./cu. ft.	0.206	0.272	0.278	0.326
Specific Gravity (Air = 1.00)	2.93	4.13	4.54	5.83
Diffusivity in Air (25°C., 1 atm.), sq. cm./sec.	0.091	0.079	0.073	0.067
Evaporation Rate (ether = 100)	71	56	28	9
Solubility in Water (25°C.), g./100 g.	1.32	0.79	0.11	0.015
Solubility of Water in Chlorohydrocarbon (25°C.), g. Water/100 g.	0.170	0.083	0.027	0.0105

8.4.1.3 Keep the patient quiet and comfortably warm but not hot.

8.4.1.4 Call a physician immediately, explaining briefly and clearly what has happened and the exact location of the patient. *Do not give anything by mouth to an unconscious patient.*

8.4.2 *SPECIFIC ACTIONS*

8.4.2.1 *Inhalation*

A person showing symptoms of trichloroethylene vapor poisoning should be removed promptly from the contaminated area. In case breathing has stopped, effective artificial respiration, such as that obtained by the prone pressure method, should be started immediately. If oxygen inhalation apparatus is available, oxygen should be administered only if one familiar with the operation of the apparatus is present to administer it. If patient is conscious, hot tea or coffee may be given as a stimulant.

Adrenalin should never be given to a person suffering from trichloroethylene poisoning. A physician should be called at once.

8.4.2.2 *Skin Contact.* All contaminated clothing should be removed at once. Clothing, including shoes, soaked in trichloroethylene should be removed and not worn again until thoroughly dry. All affected areas should be washed thoroughly with warm water and soap. After this an ointment containing lanolin should be applied in order to replace the natural skin oils. For serious or persistent cases of skin trouble and for signs and symptoms of generalized poisoning, a physician should be consulted.

8.4.2.3 *Contact with Eyes.* If liquid trichloroethylene has entered the eyes or if they have been exposed to strong concentrations of the vapor, they should be irrigated immediately and copiously with water for a minimum of 15 minutes. The eye lids should be held apart during the irrigation to insure contact of water with all the tissues of the surface of the eye and lids. A physician should be called in attendance at the first possible moment, preferably an eye specialist. If a physician is not immediately available, the eye irrigation should be continued for a second period of 15 minutes. After the first 15 minute period of irrigation is completed, it is permissible, as a first aid measure, to instill two or three drops of an 0.5 per cent pontocaine solution or an equally effective aqueous topical anesthetic. No oils or oily ointments should be instilled unless ordered by the physician.

8.4.2.4 *Taken Internally.* If a person has swallowed trichloroethylene, he should be made to vomit by drinking a glassful of mustard water, lukewarm salt water, or soapy warm water. If necessary, the patient should be encouraged to stick his finger down his throat to induce vomiting. This procedure should be repeated at least three times and then followed by the administration of a tablespoonful of epsom salts. A physician should be called at once.

The medical information in this publication has been supplied by the Medical Advisory Committee of the Manufacturing Chemists' Association.

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CHEMICAL SAFETY DATA SHEETS

Manual Sheet SD-1	Formaldehyde	15 cents
Manual Sheet SD-2	Benzene	25 cents
Manual Sheet SD-3	Carbon Tetrachloride	20 cents
Manual Sheet SD-4	Phenol	20 cents
Manual Sheet SD-5	Nitric Acid	30 cents
Manual Sheet SD-6	Paraformaldehyde	15 cents
Manual Sheet SD-7	Acetylene	15 cents
Manual Sheet SD-8	Anhydrous Ammonia	20 cents
Manual Sheet SD-9	Caustic Soda	20 cents
Manual Sheet SD-10	Caustic Potash	20 cents
Manual Sheet SD-11	Perchloric Acid Solution	20 cents
Manual Sheet SD-12	Carbon Disulfide	20 cents
Manual Sheet SD-13	Aqua Ammonia	20 cents
Manual Sheet SD-14	Trichloroethylene	20 cents

MANUALS OF STANDARD and RECOMMENDED PRACTICE

Manual L-1 Manual L-2	Warning Labels	1.00

The Chemical Safety Data Sheets, and a complete list of publications including manual sheets on unloading tank cars, drums, and carboys when filled with certain chemical products may be secured from the

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Guide No. 60 L1. December 18, 1946 File MH494.

du Pont de Nemours & Co., Inc., E. I., Mfr., Electrochemicals Dept., Wilmington 98, Del. Plants: Niagara Falls, N. Y.; Wyandotte, Mich.

Cleaning Liquid.

A volatile liquid consisting of trichlorethylene, metal degreasing grade; intended for use in cleaning metals. Not flammable or explosive at ordinary room temperatures but moderately flammable at higher ambient temperatures (32 C, 89.6 F and upward) under conditions in which the concentration of vapor in air is comparatively high (about 15 per cent by volume) and there is an intense source of ignition such as an electric arc. A higher ambient temperature (about 50 C, 122 F and upward, depending upon conditions) is required to produce moderately flammable vapor-air mixtures which can be ignited by a less intense source of ignition such as ordinary sparks and flames.

Classed as nonflammable at ordinary temperatures and moderately flammable at higher temperatures. The fire hazard is very small, being rated 3 as determined by Underwriters' Laboratories, Inc.'s Standard for Classification in which

Ether rates	100
Gasoline rates	90—100
Alcohol (ethyl) rates	60— 70
Kerosene (100 F flash) rates	30— 40
Paraffin oil rates	10— 20

Marking: Listee's name and "Triclene D."

Listed—Reexamination Service.

See description of Reexamination Service on guide card.

This card replaces MH494 dated Aug. 9, 1946.

This card is issued by Underwriters' Laboratories, Inc.

Ef 12-16- Dept
Cross Ref Ford
Y+

[22]

DU PONT

CHLORINATED

HYDROCARBONS

Nonflammable Fluids for Industrial

Exhibit "A"

526

[redacted]

THE INDUSTRIAL use of solvents has been greatly expanded through the development of synthetic organic materials with inherent properties which make them practicable and desirable for many products and processes. Among the important synthetic fluids are the nonflammable chlorinated hydrocarbons trichlorethylene, perchlorethylene, methylene chloride, and chloroform.

These solvents, although closely related chemically, have physical properties which are sufficiently different to permit the selection of the one which is best suited for a specific application. Because they are nonflammable, the hazards of fire and explosion have been eliminated. They are pure and uniform, hence can be recovered and reused many times with no alteration of their properties.

The large scale production of these nonflammable fluids has assisted materially in the development and extension of new processes such as vapor degreasing of metals, continuous scouring of wool and woolen piece goods conti. uous sterilization of canned goods in hot solvent vapor, and dry cleaning. Some of these processes are entirely new; others replace less desirable processes which were difficult to control because of the fire and explosion hazards. Today, nearly 300,000,000 pounds a year of these solvents are used in industrial processes.

Many of the new processes and improvements in existing processes which have been made possible by these synthetic solvents, are a result of industrial developments. Further development will naturally come about as a result of industry becoming better acquainted with synthetic solvents and their many applications.

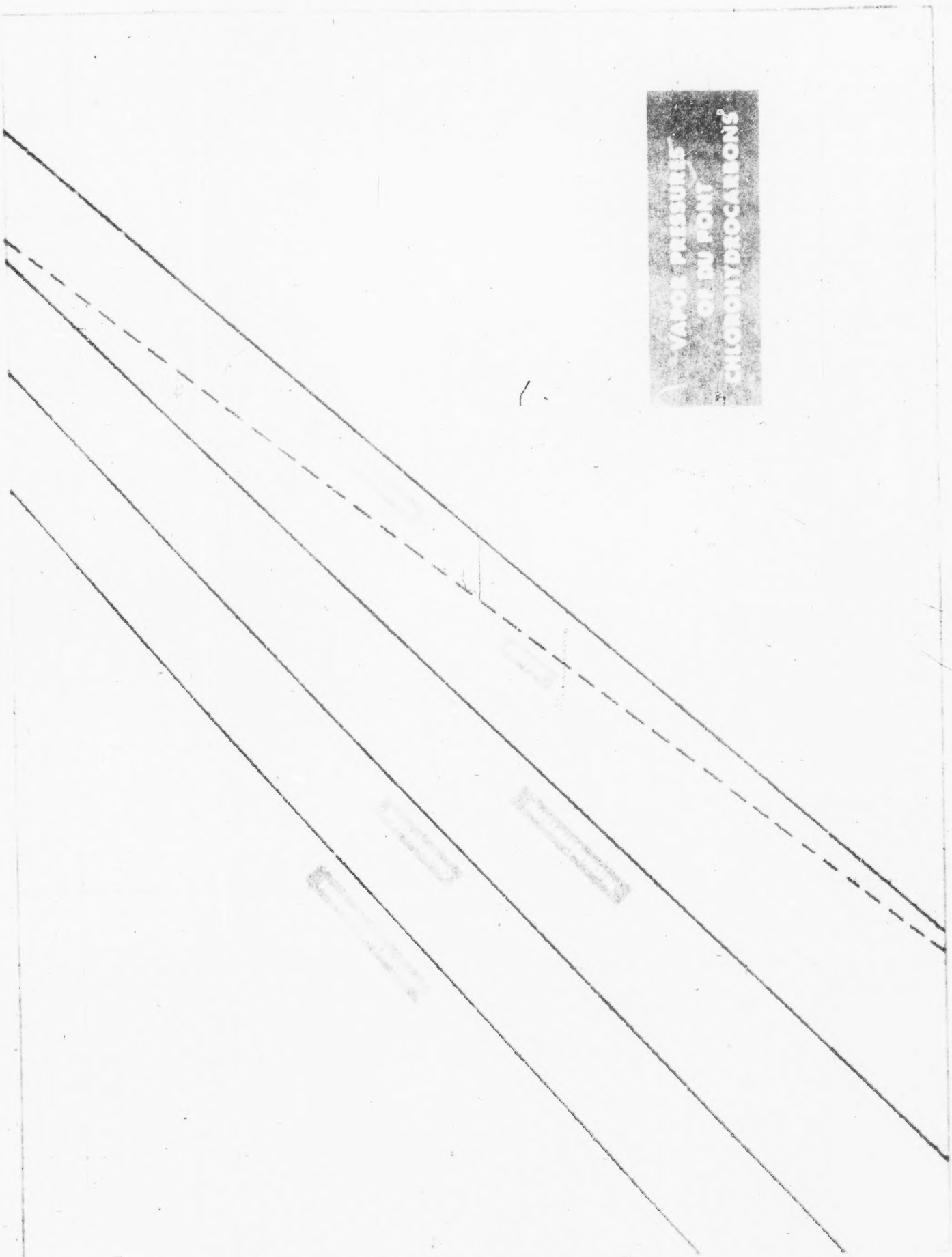
This book is designed to help in the selection of the solvent best fitted for a particular application. It contains detailed data on the chemical and physical properties of Du Pont Chlorinated Hydrocarbons. The physical properties of a number of other industrial solvents are listed in a convenient table. The practical, general information should be useful in the development of new processes and improvement in existing processes which can use solvents.

Specific Heat Liquid (20°C.)	0.276	0.234	0.225	0.205
Vapor (Cp) (1 atm.) cal./g./°C. or B.T.U./lb./°F.	0.155	0.142	0.156	0.146
	40°C.	61.2°C.	80°C.	100°C.
Critical Temperature °C.	245.0	262.9	271.0	347.1
°F.	473.0	505.2	519.8	656.8
Critical Pressure, atm.	60.9	53.8	49.5	—
Thermal Conductivity Liquid (20°C.)	0.0920	0.0751	0.0801	0.0732
Vapor (B.P.) B.T.U./hr. (sq. ft.) (°F./ft.)	0.00438	0.00455	0.00482	0.00505
Specific Gravity (20°/4°C.)	1.326	1.489	1.464	1.623
Pounds per Gal. (20°C.)	11.07	12.43	12.30 (15°C.)	13.55
Coefficient of Cubical Expansion —Av./°C. Liquid	0.00137 0°–40°C.	0.00129 0°–40°C.	0.00117 0°–40°C.	0.00102 0°–25°C.
Vapor Density g./liter	3.30	4.36	4.45	5.22
(B.P., 760 mm.) lb./cu. ft.	0.206	0.272	0.278	0.326
Specific Gravity (Air = 1.00)	2.93	4.13	4.54	5.83
Diffusivity in Air (25°C., 1 atm.), sq. cm./sec.	0.091	0.079	0.073	0.067
Evaporation Rate (ether = 100)	71	56	28	9
Solubility in Water (25°C.), g./100 g.	1.32	0.79	0.11	0.015
Solubility of Water in Chlorohydrocarbon (25°C.), g. Water/100 g.	0.170	0.083	0.027	0.0105
Viscosity Liquid (20°C.), Centipoises	0.430	0.57	0.58	0.88
Vapor	0.0109 (40°C.)	0.0115 (61°C.)	0.0103 (60°C.)	0.0099 (60°C.)
Refractive Index Liquid, N_D^{20}	1.4244	1.4455	1.4782	1.5044
Vapor	1.001055 (25°C.)	1.001436 (0°C.)	1.001784 (0°C.)	1.002009 (0°C.)
Surface Tension (in air), dynes/cm.	28.2 (20°C.)	26.2 (25°C., in N)	29 (30°C.) approx.	32.32 (20°C.)
Dielectric Constant Liquid	9.1 (20°C.)	4.785 (20°C.)	3.42 (16°C.)	2.365 (25°C.)
Vapor	1.0082 (40°C.)	1.00462 (69.6°C.)	—	—
Heat of Formation, kg.-cal./mole				
Liquid	28.6	31.2	+1	+3
Vapor	21.7	23.6	−7	−6
Flammability[1]				
Underwriters' Laboratories Rating	Nonflam.	Nonflam.	Nonflam. Rated 3	Nonflam. Rated 0
Flash Point °C.	—	—	—	—
°F.	—	—	—	—

[1]Those substances rated as moderately flammable by the Underwriters' Laboratories are stated to be much less hazardous than gasoline but more hazardous than ammonia. Trichlorethylene, Methylene Chloride, and Chloroform are practically nonflammable and nonexplosive at ordinary temperatures, but at higher temperatures under favorable conditions may form weakly combustible mixtures with air. The rating numbers accord with Underwriters' Laboratories standard of classification in which:

Ether rates	100
Gasoline rates	90-100
Alcohol (ethyl) rates	60- 70
Kerosene (100° F. flash) rates	30- 40
Paraffin oil rates	10- 20

Du Pont CHLORINATED HYDROCARBONS


CHRONOLOGICAL
NOT IN SCALE
VARVE THICKNESS

by the spray method because of its powerful solvent action and commercially satisfactory rate of evaporation. It must be remembered, however, that in any such mixture the differences in the respective rates of evaporation of the various components cause the composition of the blend to alter in time, and may lead to the formation of a flammable composition.

Dry Cleaning

Perchlorethylene and trichlorethylene are in common use as dry cleaning solvents. Here again, nonflammability and high solvent efficiency are of prime importance. Specially designed equipment assures efficient, economical, and safe operation. Both solvents remove grease, dirt, and oil from garments in a short time, and garments are left free from solvent odor. Since the solvents are low-boiling, they can be readily recovered by simple distillation. The Du Pont dry cleaning grades of perchlorethylene and trichlorethylene are sold under the trade-marks "Perclene" and "Triclene", respectively.

In textile manufacturing, trichlorethylene and, to a lesser extent, perchlorethylene are used in "Derby" continuous dry-cleaning units to remove spinning oils and accumulated soil from woolen piece goods. This method has the advantage of giving excellent cleaning at low cost with recovery of the valuable spinning oils.

Extraction

Many chlorinated hydrocarbons are used in the extraction field. The selection of the solvent depends upon many factors, such as solubility of the material being extracted, cost, and nature of the extraction process. The attractive combination of properties found in trichlorethylene have made it one of the more versatile extraction solvents, and Du Pont extraction-grade trichlorethylene has important commercial applications in the extraction of oils from oil bearing seeds (soybeans, etc.), meat scrap, raw wool, and of caffeine and a number of pharmaceuticals.

Methylene chloride is particularly suited for extraction processes where the extracted solids are heat-sensitive and solvent recovery must be carried out at low temperatures. The high stability of trichlorethylene and methylene chloride in the presence of water permits their complete removal from extracted oils by steam distillation. Where the extracted solids are not particularly heat sensitive, however, the intermediate boiling point of trichlorethylene permits complete removal of solvent from oil and meal, and efficient recovery in water cooled condensers supplied with city, river, or well water, even under summer conditions. Perchlorethylene may be applied to advantage in the combined drying-and-extraction of materials, such as raw meat scrap, which have a high moisture content. Its relatively high boiling point makes perchlorethylene somewhat more difficult to remove from the extraction products than trichlorethylene or methylene chloride. In such applications perchlorethylene serves as a heat transfer medium in driving off the water, and subsequently, as extractive solvent.

Refrigeration

Methylene chloride and, to a lesser extent, trichlorethylene are used as low-temperature heat transfer fluids because of favorable properties, including low freezing points.

(Du Pont also sells methyl chloride under the registered trade-mark "Artic", a widely used refrigerant for commercial and household units.)

Pharmaceutical

Some of the chlorinated hydrocarbons have been found valuable as solvents in preparations for destroying insects. The excellent solvent capacity of methylene chloride for many of the commonly used insecticides is utilized in aerosol mixtures. Perchlorethylene is used as anthelmintic

Other Applications

Other properties which make these materials of value or interest for industrial work include low electrical conductivity, high liquid and vapor densities and low solubility in water. Trichlorethylene and chloroform are used as freezing-point depressants for carbon tetrachloride fire-extinguishing fluid because of their low freezing-points and their ability to lower the freezing-point of carbon tetrachloride when added to the latter in small amounts.

Other examples of the diversified applications of chlorohydrocarbon solvents include the use of methylene chloride and trichlorethylene as oil-dewaxing compounds; methylene chloride in the preparation of highly efficient nonflammable paint removers; trichlorethylene for textile spotting and paint removal; perchlorethylene for metal, wood,

COMPARISON OF CHLORINATED HYDROCARBONS
with other
INDUSTRIAL ORGANIC SOLVENTS

SOLVENT	FORMULA	MOLECULAR WEIGHT	BOILING POINT (Latm.) °F	FREEZING POINT °F	VAPOR PRESSURE (68°F.) mm. Hg	LATENT HEAT OF VAPORIZATION (B.P.) BTU/lb.	SPECIFIC HEAT Liquid (68°F.) BTU/lb./°F.	SPECIFIC GRAVITY Liquid 68°/39°F.	SPECIFIC GRAVITY Vapor Air = 1.00	FLAMMABILITY Underwriters' Lab. Rating	FLAMMABILITY Flash Point °F.[2]	MAX. ALLOWABLE CONCN. p.p.m.[3]
CHLOROHYDROCARBONS												
Methylene Chloride	CH_2Cl_2	84.94	103.6	142.1	355	141.7	0.276	1.326	2.93	Nonflam.	—	200–500
Chloroform	$CHCl_3$	119.39	142.2	82.4	162	106.7	0.234	1.489	4.13	Nonflam.	—	75–100
Trichlorethylene	$CHCl:CCl_2$	131.40	188.4	123.5	57.8	103.0	0.225	1.464	4.54	3	—	100–200
Perchlorethylene	$CCl_2:CCl_2$	165.85	250.2	8.2	14.4	90.0	0.205	1.623	5.83	6	—	200
Methyl Chloride	CH_3Cl	50.49	10.8	143.7	3672	181.4	0.381	0.920	2.52[10]	Moderate	<32	100–500
Carbon Tetrachloride	CCl_4	153.84	169.7	9.1	90.0	84.2	0.205	1.594	5.32	0	—	50–100
Ethylene Dichloride	CH_2ClCH_2Cl	98.97	182.3	31.9	62.5	139.1[9]	0.308	1.253	3.42	60–70	56.0	75–100
Propylene Dichloride	$CH_3CHClCH_2Cl$	112.99	205.5	94	41.7	130.1[10]	0.22[10]	1.155	3.90	Moderate[11]	62.6	—
Tetrachlorethane	$CHCl_2CHCl_2$	167.86	295.3	0.5	5.4	98.8	0.268	1.596	5.79	Nonflam.	—	0.5–10[11]
Pentachlorethane	$CHCl_2CCl_3$	202.31	320.9	20.2	3.1	79.6[10]	0.215	1.681	6.99	Nonflam.[11]	—	—
KETONES												
Acetone	$(CH_3)_2CO$	58.08	133.0	137.7	186	224.1	0.527	0.792	2.00	90	0	200–1000
Methyl Ethyl Ketone	$(CH_3)CO(CH_2)CH_3$	72.10	175.3	123.4	76.3	190.6[10]	0.549	0.805	2.41	Flam.[11]	30	—
ESTER												
n-Butyl Acetate	$CH_3COOC_4H_9$	116.16	259.7	106.2	10.0	132.9[10]	0.4985[9]	0.88	4.00	Moderate[11]	72	150–400
ALCOHOLS												
Methyl Alcohol	CH_3OH	32.04	148.0	142.6	98.3	473.0	0.600	0.792	1.11	Moderate[11]	52	100–300
Ethyl Alcohol	C_2H_5OH	46.07	173.0	174.3	44.0	367.7	0.562	0.79	1.59	70	55	100–1000
iso-Propyl Alcohol	$(CH_3)_2CHOH$	60.09	180.4	129.1	34.0	286.8	0.606	0.789	2.07	70	53	100–400
CYCLIC ETHER												
Tetrahydrofuran	$(CH_2)_4O$	72.10	149.7	162.4	146	—	—	0.888	—	Flam.[11]	−4 Open Cup	<100 (Recommended)
HYDROCARBONS												
n-Hexane	C_6H_{14}	86.17	155.7	139.6	122	143.1	0.537	0.659	2.98	90–95	−15	1000
n-Heptane	C_7H_{16}	100.20	209.2	142.0	36.2	137.3	0.490	0.683	3.45	Flam.[11]	25	400–1000
Benzol	C_6H_6	78.11	176.2	42.01	75.5	169.7	0.406	0.88	2.77	95–100	12	50–100
Toluol	$C_6H_5CH_3$	92.13	231.1	139.0	22.0	156.3	0.392	0.886	3.14	75–80	40	100–200

(1) Those substances rated as moderately flammable by the Underwriters' Laboratories are stated to be much less hazardous than gasoline, but more hazardous than ammonia. Trichlorethylene, Methylene Chloride, Chloroform, and Tetrachlorethane are practically nonflammable and nonexplosive at ordinary temperatures, but at higher temperatures under favorable conditions may form weakly combustible mixtures with air. The rating numbers accord with Underwriters' Laboratories standard of classification in which:

- Ether rates 100
- Gasoline rates 90-100
- Alcohol (ethyl) rates 60- 70
- Kerosene (100° F. flash) rates 30- 40
- Paraffin oil rates 10- 20

Underwriters' data on flammabilities of those compounds referring directly to this footnote are not available: the information given for these is believed to be satisfactory for purposes of comparison.

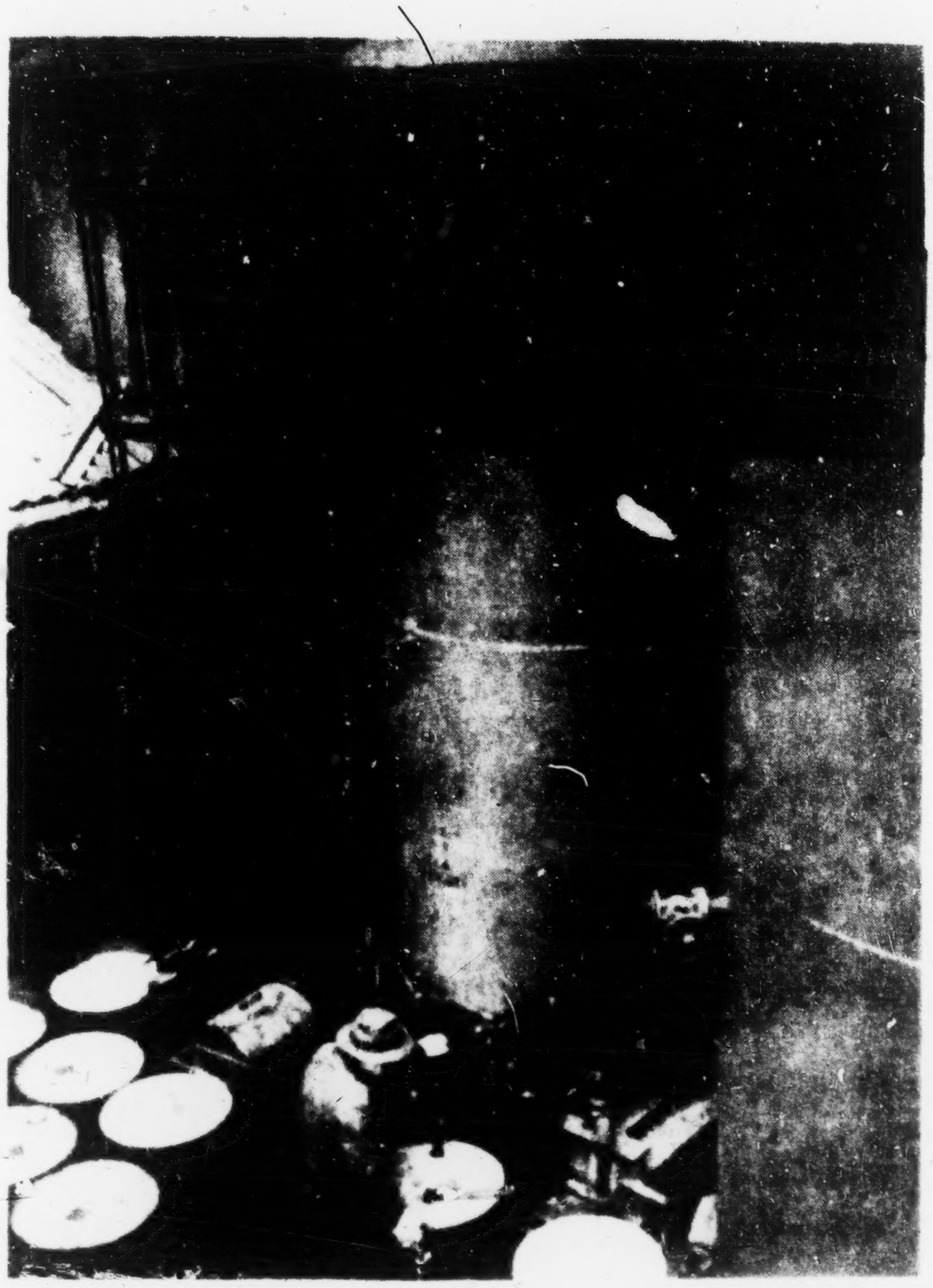
(2) Closed Cup, unless otherwise indicated. Wherever possible the data were taken from "National Fire Codes", Volume I (Flammable Liquids, Gases, Chemicals, and Explosives), National Fire Protection Association, Boston, 1948.

(3) With the exception of Tetrahydrofuran, the data given represent the range of maximum allowable concentrations of solvent vapors in air (in parts per million) for an eight-hour working day, as defined by the various state codes in 1947.

(4) 349-185° F.
(5) 296-316° F.
(6) 173° F.
(7) 255° F.
(8) 77°F
(9) 152.4°F.
(10) 5°F.
(11) Except in two states.

and other drying operations, and as a rubber solvent; chloroform as a solvent in vitamin manufacture. The U.S.P. grade of chloroform has a wide variety of uses in pharmaceuticals.

Du Pont also manufactures tetrachlorethane and pentachlorethane which are used as chemical intermediates and solvents.)



FLAMMABILITY RATINGS

None of these chlorohydrocarbons exhibits a flash point when tested by either the Cleveland Open Cup or the Tagliabue Closed Cup. Accordingly, they are not listed in Agent H. A. Campbell's Freight Tariff No. 4, which covers Interstate Commerce Commission Regulations on liquids having a flash point of 80 F. or lower.

Methylene Chloride is rated by the Underwriters' Laboratories as practically nonflammable at ordinary temperatures; trichlorethylene is rated nonflammable at ordinary temperatures. Chloroform and perchlorethylene are nonflammable. Methylene chloride, chloroform, and trichlorethylene form weakly combustible mixtures at high temperatures with high concentrations of solvent in air.

STABILITY

Methylene chloride, chloroform, trichlorethylene, and perchlorethylene are sufficiently stable for commercial use in such widely different applications as the extraction of animal and vegetable oils and fats, the degreasing of wool, textile cleaning, refrigeration by convection, and as utility solvents. Particularly rigorous conditions of use, however, such as those sometimes encountered in the degreasing and vapor drying of metal parts, may bring about a breakdown with formation of acidic decomposition products. For this reason the Du Pont degreasing grades of trichlorethylene and perchlorethylene are especially stabilized to resist such action.

Various members of the chlorinated hydrocarbon series may decompose through three fundamental causes to produce acidic decomposition products: (1) presence of air (oxidation), (2) presence of water (hydrolysis), and (3) high temperatures (pyrolysis). Some are also subject to a type of polymerization which might be termed "condensation". Oxidation is accelerated by higher temperatures and by certain metals and their salts. Decomposition of the oxidation or auto-oxidation type may be effectively controlled by very small amounts of inhibitors; such inhibitors or "stabilizers" as they are commonly known, are added to the Du Pont chlorinated hydrocarbons which might be subject to oxidation.

No successful inhibitors for hydrolysis of chlorinated hydrocarbons are known, however, the four materials discussed herein are not subject to appreciable hydrolysis under normal conditions of use.

The chlorinated hydrocarbons must be used below the temperatures at which significant pyrolysis takes place. Trichlorethylene, perchlorethylene, methylene chloride, and chloroform are extremely stable at their boiling points and, in practice, are generally used at temperatures of 20-30 C. (35-55 F.) above their boiling points. All of the chlorinated hydrocarbons will break down in direct flame or when in contact with very hot surfaces (above 400-500 C. or 752-932 F.).

MATERIALS OF CONSTRUCTION

All of the common engineering metals, including ordinary grades of iron and steel, tin (dipped or plated), brass, bronze, copper, lead, zinc, and gal-

vanized iron, may be used with the chlorinated hydrocarbons under normal conditions of use or under conditions where the formation of acidic decomposition products (see "Stability", above) is avoided. Aluminum is not generally satisfactory as a material of construction for equipment handling chlorinated solvents. However, aluminum articles are safely degreased in boiling trichlorethylene; in this case, time of contact is limited and proper control allows the solvent to be kept free from finely divided aluminum and aluminum corrosion products which tend to promote decomposition of the solvent.

In selecting materials of construction, due consideration must be given to the ease with which the metal surface can oxidize. As discussed above, under normal conditions of industrial use, methylene chloride, chloroform, trichlorethylene, and perchlorethylene will not decompose to a sufficient extent to cause corrosion of the common metals. Like other grease solvents, however, the Du Pont chlorinated hydrocarbons do remove protective oils, waxes, grease, etc., from metal surfaces thereby permitting rusting in the presence of air and or water. Accordingly, under some conditions of use it is necessary to utilize nonoxidizing surfaces such as galvanized iron, nickel, tinned copper, and the various chrome-nickle stainless steels.

SAFETY PRECAUTIONS

The degree of toxicity of the several chlorinated hydrocarbons varies considerably: chloroform is considered moderately toxic; methylene chloride, trichlorethylene, and perchlorethylene are among the least toxic of the chlorohydrocarbon group of chemicals.

Trichlorethylene, perchlorethylene, and methylene chloride have some narcotic action. Symptoms of exposure to excessive concentrations include headache, undue fatigue, or nausea. On access to fresh air, the solvents are rapidly eliminated from the body and the symptoms disappear quickly, leaving no permanent effects on the body organs.

Contact of the skin with chlorinated hydrocarbons and their vapors should be minimized, because absorption through the pores may produce the same physiological effect as inhalation and by removing natural skin oils can cause excessive skin dryness or "chapping". Lanolin salve relieves skin dryness by replacing lost natural oils. Contact of vapors with the eyes should be particularly avoided because of the sensitiveness of these organs. Obviously, the chlorohydrocarbons must not be taken internally.

On exposure to high temperatures (e.g., open flames or open electric heaters) the chlorohydrocarbons may decompose to toxic and corrosive substances; such combustion products should be vented to the outside through corrosion-resistant ducts.

Systems using chlorinated hydrocarbons should be well designed and maintained to minimize leakage of vapors into working areas. In addition to the standard methods of analyzing for chlorohydrocarbon vapors in air, the vapors may be quickly detected and estimated with the Du Pont Chlorohydrocarbon Analyzer. This instrument measures photoelectrically the spectral line of copper halide formed by the action of the chlorohydrocarbon on copper in a flaming arc electrode system. The Analyzer is manufactured and sold by Davis Emergency Equipment Co., Inc., Newark, N. J.

Years of experience in the manufacture, handling, and use in hundreds of plants have demonstrated that the Du Pont chlorinated hydrocarbons may be used in properly designed, operated, and maintained equipment with negligible health hazard. Inasmuch as the manner of handling and using these products after they leave the factory is entirely beyond the control of the supplier, no guarantee can be implied as to the effects of their use or their toxic effects, whether or not they are used in accordance with recommended procedures.

TECHNICAL SERVICE

The Electrochemicals Department, E. I. du Pont de Nemours & Company, has had more than 25 years of experience in manufacturing, handling, and servicing chlorinated hydrocarbons. Upon request, the following customer services are available: assistance in applying any of the materials for particular purposes; additional technical data; services of experienced engineers for consultation on equipment design, plant layout, and materials handling; assistance of technical servicemen (Coast-to-Coast service); laboratory analysis of products; and service laboratory evaluation of processes. For prompt service, write to the nearest office (see below) or to your supplier of Du Pont solvents.

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DISTRICT OFFICES

BALTIMORE 2, M	Plaza 2862
321 Fallsway	
BOSTON 10, MASS.	Hancock 6-1714
140 Federal Street	
CHARLOTTE 2, N. C.	5-5561
427 W. Fourth Street	
CHICAGO 3, ILL.	Andover 3-7000
7 S. Dearborn Street	
CINCINNATI 2, OHIO	Parkway 5253
2412 Carew Tower	
CLEVELAND 14, OHIO	Cherry 1-6078
1226 Nat. City Bank Bldg.	
DALLAS* 10, TEXAS	Harwood 7666
3rd and Borich Streets	
DETROIT 26, MICH.	Woodward 2-7360
966 Penobscot Bldg.	
HOUSTON* 7, TEXAS	Preston 4133
2812 Center Street	
KANSAS CITY* 1, MO.	Victor 6240
Guinotte and Mich. Aves.	
LOS ANGELES, CALIF.	Cumberland 3-2761
P. O. Box 70, El Monte, Calif.	
NEW ORLEANS* 18, LA.	Walnut 4527
Maple and Leak Aves.	
NEW YORK 1, N. Y.	Longacre 3-6440
350 Fifth Avenue	
OKLAHOMA CITY* 2, OKLA.	2-2512
203 S. Compress Street	
PHILADELPHIA 3, PA.	Kingsley 5-1900
1616 Walnut Street	
PITTSBURGH 22, PA.	Grant 1-2961
517 Park Building	
SAN FRANCISCO 6, CALIF.	Exbrook 2-6230
235 Second Street	
TULSA* 3, OKLA.	5-1251
26 N. Guthrie Street	
WICHITA* 2, KANS.	2-4156
223 S. Wichita Street	

*Barada & Page, Inc."

Export Division
Du Pont Building, Wilmington 98, Delaware

E. I. DU PONT DE NEMOURS & CO. (INC.), WILMINGTON 98, DEL.
ELECTROCHEMICALS DEPARTMENT

DU PONT

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

535

MAGNOLIA SOY PRODUCTS CO.

P. O. BOX 183

GREENVILLE, MISS.

February 14, 1952

RSA | WSP
PA | PR
MP | JS
OWC | CRC
APS
WU
GAN
FILE
Return to

Mr. C. B. Shepherd, Manager,
Chlorine Products Division
E. I. DuPont Company,
Wilmington, Delaware.

Date
Gov't. ( )
Plf. ( )
Dft. ( )
Exhibit No. D 8
Witness Ford Cross
Reporter

Dear Mr. Shepherd:

Some eighty head of cattle have died recently in the vicinity of Poplarville, Mississippi, the cause of which has been traced to feeding soybean meal made in our plant. We are facing a lawsuit which brings into sharp focus the necessity of some sort of action. The worst possible publicity is shaping up and we are advised that political action to bar use of our meal in this state is to follow. Further, we have encountered growing resistance to the use of our meal in areas outside of Mississippi, with some cancellations of contracts.

To date we have had not too much trouble marketing our meal. This is because there has developed a shortage of protein in the drouth area of the Southwest. This condition will not last indefinitely and we will be faced wwith the problem of selling our meal in a competitive market. It is self-evident that we cannot continue selling meal that is limited to certain uses in a competitive market.

At the timewe were planning the building of this mill the question was raised by us as to the quality of the meal and whether meal made by trichlorethylene extraction was actually harmful tocattle. On August 11,1950, you wrote us that in no cases where the meal was properly manufactured was there any record of ill effects on cattle. We assumed that by offering trichlorethylene for sale and promoting the use of it that you had gone far enough with the development to know for certainthat it was safe.

On July 31,1951 you wrote that some trouble had developed from feeding trichlorethylene extracted meal and advised us to channel our meal to poultry and hog feeders. At a conference this week with Stuart Armstrong we learned that no quick solution to the problem was anticipated.

We cannot consider operating this mill with trichlorethylene until the toxicity problem is solved. That is not in sight. We seem to have no alternative except to convert to hexane, much as we dislike to do that.

We feel that DuPont is in large measure responsible for the position we find ourselves in because of the fact that that you did promote the use of trichlorethylene and disseminated information indicating it was safe to use. For this reason we are asking that DuPont share the responsibility.

We shall need to borrow $100,000 to convert our mill and, due to other obligations we are unable to finance this thru regular channels. We have a corporation with paid in capital of $250,000 and we have outstanding obligations

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MAGNOLIA SOY PRODUCTS CO.

P. O. BOX 183

GREENVILLE, MISS.

amounting to $240,000 in first and second mortgages. The appraised value of the property is $493,211.

A loan of $100,000 would suit our plans better than any other method at present. Our common stock could be increased by $150,000 and stillleave us within the bounds of reasonable capitalization.

Since we feel that DuPont is responsible for the situation we find ourselves in, we are expecting you to assist us by making us this loan or, if preferred, taking an equal amount of common stock. By suggesting two ways to go we only mean to try to avoid setting a precedent as Mr.Armstrong pointed out as a thing to be avoided.

This soybean mill was built by the writer and Lyman Reed doing business as L.L.Ford Associates and sold to the Magnolia Soy products Company. The majority stockholders are threatening action against L.L.Ford Associates to recover the cost of the extraction plant which amounts to $265,000. The L.L.Ford Associates are in no position to take this responsibility alone.

Respectfully,

MAGNOLIA SOY PRODUCTS COMPANY

L.L.Ford

2-18-Dept
Loan Loan - Ford
WC
JT

537

FEEDSTUFFS

★ A WEEKLY NEWSPAPER ★

FOR THE FEED MANUFACTURER, JOBBER, BROKER and DEALER

23—Number 40 OCTOBER 6, 1951 1 Year $4, 2 Yea

New Screenings Definition Liste

ACTION TAKEN AT MEETING OF FEED CONTROL OFFICIALS

Organization Also Goes on Record Against Use of Trichloroethylene Solvent Extracted Soybean Oil Meal for Calves, Dairy and Beef Cattle

WASHINGTON—Action toward revising screenings definitions and a resolution expressing a recommended attitude toward soybean oil meal when trichloroethylene is used as a solvent were among the developments of greatest immediate interest to the feed industry occurring at the 41st annual convention of the Association of American Feed Control Officials. The meeting was held in Washington Oct. 3-4.

The resolution on trichloroethylene reads: "Resolved, that this association goes on record as discouraging the use of trichloroethylene solvent extracted soybean oil meal, flakes or pellets in rations for calves, dairy and beef cattle, until it has been proven that these products are nontoxic to such animals, and that, when these products are sold or offered for sale, the process of manufacture, and a warning statement prohibiting their use in rations for calves, dairy and beef cattle, shall be stated on label."

Label Adopted

Trichloroethylene has been used as a solvent in a small number of soybean processing plants during the past two or three years. Rather mysterious increase in mortality of ruminants in parts of the Middle West has been suspected of being caused by the feeding of soybean oil meal manufactured by the process, although this has not been definitely established.

The University of Minnesota recently undertook a research project try to determine the exact cause of the cattle deaths, and the part, if any, that trichloroethylene had in them.

In the meantime, the type of label and warning now recommended by the feed control officials has been

(Continued on page 8)

(Continued from page 1)

adopted voluntarily by the four members of the National Soybean Processors Assn. who have been using the solvent.

It has been emphasized that other types of solvents used in extracting oil from soybeans are not under suspicion, and also that there has been no evidence that soybean products manufactured with the use of trichloroethylene have any deleterious effect on poultry or on animals other than ruminants.

Date 4-28-55 Exhibit No. D 9
Witness Armstrong
Cont. ( )
Pet. ( )
Def. ( ) Jay McDiarmid
Reporter

9 C J

538

RC-6614

DU PONT
REG. U.S. PAT. OFF.
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON 98, DELAWARE

ELECTROCHEMICALS DEPARTMENT

July 31, 1951

Mr. Lyman Reed, Sales Manager
Magnolia Soy Products Company
Greenville, Mississippi

Dear Mr. Reed:

In recent months, there have been increasing indications that trichlorethylene-extracted soybean meal may be associated with a hemorrhagic disease in cattle which has been observed in widely-scattered areas. Research programs are now being undertaken by the University of Minnesota and Iowa State College to investigate the nature and causes of the disease and to determine if trichlorethylene-extracted meal is, in fact, a contributory factor.

The cause of the disease is unknown. The evidence that trichlorethylene-extracted meal is associated in any way with the disease is entirely circumstantial, but the most recent reports have all come from farms using this type of meal in their cattle feed. Thus, despite the satisfactory experience with trichlorethylene-extracted meal in the past, we cannot ignore the possibility that this meal under certain conditions, perhaps in combination with one or more other factors, may be associated with the particular hemorrhagic disease observed in Minnesota and other scattered points.

In view of the present uncertainty, we strongly recommend that sales of trichlorethylene-extracted meal be confined to outlets other than cattle feed until more definite information is available from the investigations now underway in Minnesota and Iowa. To the best of our knowledge, the hemorrhagic disease in question is peculiar to cattle only, and all the available evidence and experience indicates that trichlorethylene-extracted meal is entirely satisfactory as a component for feeding hogs and poultry.

Very truly yours,

C. B. Shepherd

C. B. Shepherd, Manager
Chlorine Products Division

CBS/a

All Pffs
Date 11-26-55 Exhibit No. 35
Gov't. ( )
Plf. (X)
Dft. (X) 10
Witness Ford
Reporter Fay McKinnie

909

539

Received from
MAIL CT. RECORDS

FEB 28 19[illegible]

DUPONT

ORIGINAL ORDER

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

ORDER NUMBER
NY 45358

ELECTROCHEMICALS DEPT

RETURN TO CARTON

ORDER NUMBER	INVOICE NUMBER
NY 45358	14[illegible]

NO. SOLD TO MAGNOLIA SOY PRODUCTS CO
GREENVILLE MISSISSIPPI

DATE ENTERED 10/2/51
DATE OF INVOICE 11/21/51

CONSIGNED TO ORDER OF E I DU PONT DE NEMOURS & CO INC ELECTROCHEMICALS DEPT

DESTINATION GREENVILLE STATE MISS COUNTY

NOTIFY MAGNOLIA SOY PRODUCTS CO

AT GREENVILLE STATE MISS COUNTY

ROUTE ERIE SUPERIOR [illegible] GT CN GT IC COLLECT

DELIVERING CARRIER

CAR OR VEHICLE INITIALS [illegible] E NUMBER 36451

SHIPPING POINT X NIAGARA FALLS NY

SHIPPING DATE 11/19/51

CUSTOMER'S ORDER NO.

TERMS	TERRITORY	INDUSTRY	USE	THROUGH
2/10 NET 2/1	11	060	27	

NO. PACKAGES	FREIGHT CLASSIFICATION, DESCRIPTION OF MERCHANDISE ORDERED, MARKS AND NUMBERS	PRICE	AMOUNT	TOTAL
52	[redacted] TRICHLORETHYLENE EXTRACTION GRADE 650 LBS EACH 33800 LBS NET OR 36527 LBS MISS MISSISSIPPI SALE TAX EXEMPT	.11 LB FOB PLANT NIAGARA FALLS NY		3718.00

Date
Gov't. ( )
Pl. ( )
Dft. (1)

Exhibit No. D11
Witness Shepherd
5
Reporter

SHIPPERS BILLING INSTRUCTIONS
CODE
NR

X NIAGARA FALLS NY
B/L NF 270304

RECEIVED BY
ORDER TRANS.
BILLING
STOCK
FILING

Rec'd Cashier

1

GC

1 KC

540

E. I. DU PONT DE NEMOURS & COMPANY (INC.), ELECTROCHEMICALS DEPT., WILMINGTON, DEL.

FACTORY SHIPPING ADVICE

SHIPPING DATE 11-19-51

FACTORY: AFTER SHIPMENT MAIL WITH BILLS OF LADING TO NEW YORK NY

No. NY/45358 270504

SOLD TO [redacted]

DATE ENTERED 10/2/51

CONSIGNED TO ORDER OF E I DU PONT DE NEMOURS & CO INC ELECTROCHEMICALS DEPT

DESTINATION GREENVILLE STATE MISS COUNTY

NOTIFY MAGNOLIA SOY PRODUCTS CO

AT GREENVILLE STATE MISS COUNTY

ROUTE ERIE SUPERIOR BRIDGE GT CN GT IC COLLECT

DELIVERING CARRIER CAR OR VEHICLE INITIALS B&LE NUMBER 90151

SHIPPING POINT X NIAGARA FALLS NY SHIP 11/19/51

SHIPPING DATE NOV 19 1951 W.O.S. CUSTOMER'S ORDER NO. 112

TERMS	TERRITORY	INDUSTRY	LINE	THROUGH
S/D AGAINST B/L	11	060	27	

NO. PACKAGES	FREIGHT CLASSIFICATION, DESCRIPTION OF MERCHANDISE ORDERED, MARKS AND NUMBERS	GROSS WEIGHT
52	DRUMS TRICHLORETHYLENE IN BULK	36452
		75
		36527
	650 LBS EACH 33800 LBS NET TRICHLORETHYLENE EXTRACTION GRADE	.11 LB FOB PLANT NIAGARA FALLS NY - DRUMS INCL
	OR LBS	
	MISSISSIPPI SALE TAX EXEMPT	
	Sales 121784-785	

3718.00

Date
Govt. ( )
( )
( )

Exhibit No. D12
Witness
Reporter

SHIPPERS X NIAGARA FALLS NY

CODE NR

DM FILLED BY
CHECKED BY
RECEIVED BY

RECEIVED NOV 19 1951 NIAGARA FALLS N.Y.

FACTORY: AFTER SHIPMENT FILL IN PARTICULARS AND PROMPTLY MAIL THIS COPY WITH SHIPPING DOCUMENTS TO BILLING OFFICE SHOWN ON HEADING.

911

527

E.I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

DU PONT

EC-7010-A

ELECTROCHEMICALS DEPT.

NEW YORK NY

ORDER NUMBER
NY 45358

SOLD TO MAGNOLIA SOY PRODUCTS CO
GREENVILLE MISSISSIPPI

DATE ENTERED 10/2/51

CONSIGNED TO ORDER OF E I DU PONT DE NEMOURS & CO INC ELECTROCHEMICALS DEPT

DESTINATION GREENVILLE STATE MISS COUNTY

NOTIFY MAGNOLIA SOY PRODUCTS CO

AT GREENVILLE STATE MISS COUNTY

ROUTE ERIE SUPERIOR BRIDGE GT CN GT IC COLLECT

DELIVERING CARRIER — CAR OR VEHICLE INITIALS — NUMBER

SHIPPING POINT X NIAGARA FALLS NY SHIP 10/19/51

SHIPPING DATE — CUSTOMER'S ORDER NO.

TERMS	TERRITORY	INDUSTRY	USE	THROUGH
S/D AGAINST B/L	11	060	27	

NO. PACKAGES	FREIGHT CLASSIFICATION, DESCRIPTION OF MERCHANDISE ORDERED, MARKS AND NUMBERS	PRICE
52	DRUMS TRICHLORETHYLENE IN BULK 650 LBS EACH 33800 LBS NET TRICHLORETHYLENE EXTRACTION GRADE GR LBS MISSISSIPPI SALES TAX EXEMPT	.11 LB FOB PLANT NIAGARA FALLS NY - DRUMS INCL

ORDER

ACKNOWLEDGMENT OF

To the extent that this order is covered by contract between us, it is accepted on the terms and conditions set forth in such contract. To the extent this order is not covered by contract, Seller assumes no obligation except in conformity with the conditions printed on the reverse side hereof.

E. I. DU PONT DE NEMOURS & CO.
INCORPORATED
ELECTROCHEMICALS DEPT.

SHIPPERS BILLING INSTRUCTIONS

X NIAGARA FALLS NY

DM

CODE
NR

Date
Govt. ( )
Plf. ( )
Def. ( )

Exhibit No. D 13
Witness Shufkind

7.20

7/2

CONDITIONS

1. Seller's liability as to delivery ceases upon making delivery of material purchased hereunder to carrier at shipping point in good condition, the carrier acting as Buyer's agent.

2. Except as otherwise provided in condition 9 hereof, Seller makes no warranty of any kind, expressed or implied, except that the goods sold hereunder shall be of merchantable quality; and Buyer assumes all risk and liability for results obtained by the use of the material covered by this order, whether used singly or in combination with other products.

3. No claim of any kind, whether as to goods delivered or for non-delivery of goods, shall be greater in amount than the purchase price of the goods in respect of which such damages are claimed; and failure to give notice of claim within ten (10) days from date of delivery, or the date fixed for delivery, respectively, shall constitute a waiver by Buyer of all claims in respect of such goods. No charges or expenses incident to any claims will be allowed unless approved by an authorized representative of Seller. Goods shall not be returned to Seller without Seller's permission.

4. All returnable containers used in connection with shipments of our material are the property of the Seller and are loaned to the Buyer. Buyer shall use such containers only for reasonable storage of Seller's goods originally delivered therein and shall return such containers in good condition within two (2) months from date of original shipment. Buyer shall make a deposit at the time of shipment of Seller's current charge for such containers as security for their return. Such deposit shall be paid, without discount, when the invoice for the contents is paid. Upon return of such containers as above provided, Seller shall credit Buyer with the amount of said deposit; but if Buyer fails to return said containers in good condition and within the specified time, Seller may refuse to accept same and may retain said deposit.
If the material covered by this order, is shipped in tank cars furnished by the Seller, the Buyer agrees that such tank cars will be unloaded within forty-eight (48) hours (Sundays and holidays excepted) after receipt thereof.

5. The terms of payment applicable to this order are Seller's regular terms or those specifically quoted to Buyer. In the event Buyer fails to fulfill the terms of payment, or in case Seller shall have any doubt at any time as to Buyer's financial responsibility, Seller may decline to make further deliveries except upon receipt of cash or satisfactory security.

6. Buyer shall reimburse Seller for all taxes, excises or other charges which Seller may be required to pay to any government (national, state or local) upon the sale, production or transportation, of the commodities sold hereunder.

7. No liability shall result from delay in performance, or non-performance, caused by circumstances beyond the control of the party affected, including, but not limited to, Act of God, fire, flood, war, government action, accident, labor trouble or shortage, inability to obtain material, equipment or transportation. Quantities so affected may be eliminated without liability, but the order shall remain otherwise unaffected. Seller reserves the right to reject or defer shipment of all or part of Buyer's order, without liability therefor, and Buyer may purchase elsewhere any quantities so rejected or deferred.

8. This order is not assignable or transferable by Buyer, in whole or in part, except with the written consent of Seller.

9. Seller warrants that the use or sale of the material delivered hereunder will infringe no claim of any United States patent covering the material itself; but does not warrant against infringement by reason of the use thereof in combination with other material or in the operation of any process.

10. The prices stated herein may be adjusted by Seller as of the beginning of any calendar month by so notifying Buyer in writing at any time prior to the effective date of such change. Such price or prices shall be paid for all material shipped hereunder on and after the date it becomes effective, unless subsequently again revised by Seller as provided herein. If unwilling to accept a price adjustment with respect to any product, Buyer may cancel this order in so far as it relates to such product by notifying Seller in writing within ten (10) days after receipt of Seller's notice, but the order shall remain in effect with respect to all other products. In the event of any Governmental action or request which prevents Seller from making a price increase or continuing any price already in effect, Seller, by giving Buyer ten (10) days' prior written notice, may terminate this order.

11. This instrument contains all the terms and conditions with respect to the sale and purchase of the material named herein, and no modification of these terms and conditions shall be of any force unless such modification shall be signed by the party claimed to be bound thereby.

Exact Copy GS-3 L R Burroughs Agent

2084—11-48—OP3 (Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification Territories, March 16, 1922, as amended August 1, 1930 and June 15, 1941) 1st SHEET

ILLINOIS CENTRAL

UNIFORM STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper's No. 11/17/55

Agent's No.

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading,

at Greenville, Miss 11/23, 1951, 19—

from Magnolia Soy Products Co.

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

(Mail or street address of consignee—For purposes of notification only.)

Consigned to M. L. Richeson & Son

Destination New Orleans State of La County of —

Route 1 Ic

Delivering Carrier WA 104208 Car Initial I C Car No. 27893

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1000	Sx Soybean Meal	100750	30½	+62
	FOR EXPORT			
	SS. Steel Maker			
	loaded in accordance with	ICC		D 11-9
	Service Order #874			
	Brode 7320			
	Booking No. NYK II 2051			
	Seals 2.28731K-94R			
		Med 1145a 11/24/51		

Copy

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To be prepaid

Received $ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

Per Sol Shannon

Magnolia Soy Products Co Shipper.

Per

Received 11,455 A A Agent.

Per 23 Nov 51

Permanent postoffice address of Shipper

Cordially Yours—Illinois Central

Copy

1

544

CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the authority of law, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehouseman, only, for loss, damage, or delay caused by fire occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for ordinary damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, earning freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the same may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expense they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower value than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classifications or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier issuing this bill of lading, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: Provided, That the carrier reimburse the claimant for the premium paid thereon.

Sec. 3. Except where such service is required as the result of carrier's negligence, all property shall be subject to necessary cooperage and baling at owner's cost. Each carrier over whose route cotton or cotton linters is to be transported hereunder shall have the privilege, at its own cost and risk, of compressing the same for greater convenience in handling or forwarding, and shall not be held responsible for deviation or unavoidable delays in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership (and prompt notice thereof shall be given to the consignor), and if so delivered shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 4. (a) Property not removed by the party entitled to receive it within the free time allowed by tariffs, lawfully on file (such free time to be computed as therein provided), after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination has been made, may be kept in vessel, car, depot, warehouse or place of delivery of the carrier, subject to the tariff charge for storage and to carrier's responsibility as warehouseman, only, or at the option of the carrier, may be removed to and stored in a public or licensed warehouse at the place of delivery or other available place, at the cost of the owner, and there held without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including a reasonable charge for storage.

(b) Where nonperishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: Provided, That the carrier shall — at first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped order notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: Provided, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: Provided, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier at its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expense and of caring for and maintaining the property, if proper care of the same requires special expense, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

Sec. 5. No carrier hereunder will carry or be liable in any way for any documents, specie, or for any articles of extraordinary value not specifically rated in the published classifications or tariffs unless a special agreement to do so and a stipulated value of the articles are indorsed hereon.

Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignor shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges: Provided, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the transportation of said property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment so reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a notice of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the reconsignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

If a shipper or consignor of a shipment of property (other than a prepaid shipment) is also the consignee named in the bill of lading and, prior to the time of delivery, notifies, in writing, a delivering carrier by railroad (a) to deliver such property at destination to another party, (b) that such party is the beneficial owner of such property, and (c) that delivery is to be made to such party only upon payment of all transportation charges in respect of the transportation of such property, and delivery is made by the carrier to such party without such payment, such shipper or consignor shall not be liable (as shipper, consignor, consignee, or otherwise) for such transportation charges but the party to whom delivery is so made shall in any event be liable for transportation charges billed against the property at the time of such delivery, and also for any additional charges which may be found to be due after delivery of the property, except that if such party prior to such delivery has notified in writing the delivering carrier that he is not the beneficial owner of the property, and has given in writing to such delivering carrier the name and address of such beneficial owner, such party shall not be liable for any additional charges which may be found to be due after delivery of the property, but if the party to whom delivery is made has given to the carrier erroneous information as to the beneficial owner, such party shall nevertheless be liable for such additional charges. If the shipper or consignor has given to the delivering carrier erroneous information as to who the beneficial owner is, such shipper or consignor shall himself be liable for such transportation charges, notwithstanding the foregoing provisions of this paragraph and irrespective of any provisions to the contrary in the bill of lading or in the contract of transportation under which the shipment was made. The term "delivering carrier" means the line-haul carrier making ultimate delivery.

Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued to the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, is or is in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section; and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence in making the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to call at any port or ports, in or out of the customary route, to tow and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or lakes, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforceable according to its original tenor.

(Revised June 15, 1941)

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545

Copies Copy

THIS MEMORANDUM

Shipper's No. 11/17/55

Agent's No.

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading,

at Greenville, Miss 11/26, 19 55

from Magnolia Soy Products Co

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to Isthmian Steamship Co. (Mail or street address of consignee—For purposes of notification only.)

Destination Mobile State of Ala County of

Route I C Newton - GM&O

Delivering Carrier 203206 Car Initial IC Car No. 22231

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1000	M Soybean Meal	100750	53	
	FOR EXPORT			
	SS Stolsnaben			
	Loaded in accordance with ICC			
	Service Order #874			
	Export Meal for Brode			
	Booking No. NYK 112051			
	Seals 22881K - 82K			

Dest 11-28-55 Exhibit 1 Orig Bill of Lading Dest 4 Shipper's Weight

Seal showed Rec'd 10:22, Nov 26, 55

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To be prepaid

Received $ 325.23 to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$

I C R R Agent

Per

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

per

Magnolia Soy Products Co Shipper.

Per BM

Permanent postoffice address of Shipper

Jr Traffic Agent

Per

Agent

3

Cordially Yours — Illinois Central

G/E

546

CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the public authority, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehouseman, only, for loss, damage, or delay caused by fire occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for country damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, earning freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the same may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expenses they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower value than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classification or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier issuing this bill of lading, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: Provided, That the carrier reimburse the claimant for the premium paid thereon.

Sec. 3. Except where such service is required as the result of carrier's negligence, all property shall be subject to necessary cooperage and baling at owner's cost. Each carrier over whose route cotton or cotton linters is to be transported hereunder shall have the privilege, at its own cost and risk, of compressing the same for greater convenience in handling or forwarding, and shall not be held responsible for deviation or unavoidable delays in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership (and prompt notice thereof shall be given to the consignor), and if so delivered shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 4. (a) Property not removed by the party entitled to receive it within the free time allowed by tariffs, lawfully on file (such free time to be computed as therein provided), after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination has been made, may be kept in vessel, car, depot, warehouse or place of delivery of the carrier, subject to the tariff charge for storage and to carrier's responsibility as warehouseman, only, or at the option of the carrier, may be removed to and stored in a public or licensed warehouse at the place of delivery or other available place, at the cost of the owner, and there held without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including a reasonable charge for storage.

(b) Where perishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: Provided, That the carrier shall have first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped order notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: Provided, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: Provided, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier at its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expense and of caring for and maintaining the property, if proper care of the same requires special expense, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

Sec. 5. No carrier hereunder will carry or be liable in any way for any documents, specie, or for any articles of extraordinary value not specifically rated in the published classifications or tariffs unless a special agreement to do so and a stipulated value of the articles are indorsed hereon.

Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignor shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges. Provided, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the transportation of said property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment so reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a notice of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the reconsignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

If a shipper or consignor of a shipment of property (other than a prepaid shipment) is also the consignee named in the bill of lading and, prior to the time of delivery, notifies, in writing, a delivering carrier by railroad (a) to deliver such property at destination to another party, (b) that such party is the beneficial owner of such property, and (c) that delivery is to be made to such party only upon payment of all transportation charges in respect of the transportation of such property, and delivery is made by the carrier to such party without such payment, such shipper or consignor shall not be liable (as shipper, consignor, consignee, or otherwise) for such transportation charges but the party to whom delivery is so made shall in any event be liable for transportation charges billed against the property at the time of such delivery, and also for any additional charges which may be found to be due after delivery of the property, except that if such party prior to such delivery has notified in writing the delivering carrier that he is not the beneficial owner of the property, and has given in writing to such delivering carrier the name and address of such beneficial owner, such party shall not be liable for any additional charges which may be found to be due after delivery of the property, but if the party to whom delivery is made has given to the carrier erroneous information as to the beneficial owner, such party shall nevertheless be liable for such additional charges. If the shipper or consignor has given to the delivering carrier erroneous information as to who the beneficial owner is, such shipper or consignor shall himself be liable for such transportation charges, notwithstanding the foregoing provisions of this paragraph and irrespective of any provisions to the contrary in the bill of lading or in the contract of transportation under which the shipment was made. The term "delivering carrier" means the line-haul carrier making ultimate delivery.

Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued on the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, in or in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section; and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence in making the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to call at any port or ports, in or out of the customary route, to tow and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or the unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or lakes, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforceable according to its original tenor.

(Revised June 15, 1941)

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Exact Copy L R Burroughs Agent

5565—11-50—OPO

(Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification Territories, March 16, 1922, as amended August 1, 1930 and June 16, 1941.)

1st SHEET

UNIFORM STRAIGHT BILL OF LADING

Shipper's No. 11/17/51

ORIGINAL—NOT NEGOTIABLE

Agent's No.

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading,

at Greenville, Miss 11/23, 19 51

from Magnolia Soy Products Co

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

(Mail or street address of consignee—For purposes of notification only.)

Consigned to W. L. Richeson & Son

Destination New Orleans State of La County of

Route I C

Delivering Carrier Car Initial IC Car No. 32008

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1000 sx	Soybean Meal	100750	30½	
			6% Cl	
	For Export			
	SS. Steel Stakes			
	Loaded in accordance with	ICC		
	Service Order # 874			
	Export Meal for Brode			
	Packing No NYK 112051/25			
	Sals 22875K - 76K			
	Copy			

Detail 55 Exhibit "A" Dkt
Govt ( ) Witness
Pkt ( ) Received
Bill ( ) Delivered

Seal Shipper
Sealed 6:30 PM
23 Nov 51

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

per JF Frye Agent ICRR

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To be prepaid

Received $
to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$

Magnolia Soy Products Co Shipper. Agent

Per BM Per

Permanent postoffice address of Shipper

Cordially Yours—Illinois Central

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CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the public authority, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehousemen, only, for loss, damage, or delay caused by the occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for ordinary damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, earning freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the same may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expenses they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower value than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classification or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: *Provided*, That the carrier reimburse the claimant for the premium paid thereon.

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(b) Where perishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: *Provided*, That the carrier shall have first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped order notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: *Provided*, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: *Provided*, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier at its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expense and of caring for and maintaining the property, if proper care of the same requires special expense, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

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Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignor shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges. *Provided*, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the transportation of said property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment so reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a notice of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the consignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

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Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued on the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, in or in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section; and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence in making the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to call at any port or ports, in or out of the customary route, to coal and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or the unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or lakes, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforced according to its original tenor.

(*Revised June 15, 1941*)

140

549

Exact Copy J R Burroughs Agent

20M—11-53—CPC (For use in connection with Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification Territories, March 15, 1922, as amended August 1, 1930, and June 15, 1941.) 2nd SHEET

ILLINOIS CENTRAL

THIS SHIPPING ORDER must be legibly filled in, in ink, in indelible pencil, or in carbon and retained by the Agent.

Shipper's No. 11/27/51

Agent's No. _____

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVE, subject to the classifications and tariffs in effect on the date of the issue of this Shipping Order,

at Gulfport Miss 11/26, 19 51

from Mocnelia Soy Products Co

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to Lothman Steamship Co (Mail or street address of consignee—For purposes of notification only.)

Destination Mobile State of Ala County of —

Route I C Newton - GM & O

Delivering Carrier 202x07 Car Initial NYC Car No. 128296

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1091 sx	Cottonseed Meal	100750	30½	
	For Export		6%	
	to Malmaker			
	loaded in accordance with ICC Service			
	Order # 874 - Export meal for Bonded			
	Booking No NYK 11205			
	Seals 22879K-80K			

Date 12-28-51 Exhibit No. _____

Gov't. ( ) Witness _____

Pilf ( ) Counsel _____

Dis. ( ) Ex. _____

Larry McAmis Reporter

Seal Shown as'd 10:15AM Nov 26 1951

Copy

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To be prepaid

Received $ 9.25.23 to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per _____

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$ _____

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."

NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

per _____

Mocnelia Soy Products Co, Shipper.

Per BM

Permanent postoffice address of Shipper _____

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.

2

Cordially Yours — Illinois Central

550

CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the authority of law, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehouseman, only, for loss, damage, or delay caused by fire occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for country damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, earning freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the same may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expense they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower value than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classification or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier issuing this bill of lading, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: Provided, That the carrier reimburse the claimant for the premium paid thereon.

Sec. 3. Except where such service is required as the result of carrier's negligence, all property shall be subject to necessary cooperage and baling at owner's cost. Each carrier over whose route cotton or cotton linters is to be transported hereunder shall have the privilege, at its own cost and risk, of compressing the same for greater convenience in handling or forwarding, and shall not be held responsible for deviation or unavoidable delays in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership (and prompt notice thereof shall be given to the consignor), and if so delivered shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 4. (a) Property not removed by the party entitled to receive it within the free time allowed by tariffs, lawfully on file (such free time to be computed as therein provided), after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination has been made, may be kept in vessel, car, depot, warehouse or place of delivery of the carrier, subject to the tariff charge for storage and to carrier's responsibility as warehouseman, only, or at the option of the carrier, may be removed to and stored in a public or licensed warehouse at the place of delivery or other available place, at the cost of the owner, and there held without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including a reasonable charge for storage.

(b) Where nonperishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: Provided, That the carrier shall have first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped under notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: Provided, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: Provided, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier in its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expense and of caring for and maintaining the property, if proper care of the same requires special expense, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

Sec. 5. No carrier hereunder will carry or be liable in any way for any documents, specie, or for any articles of extraordinary value not specifically rated in the published classifications or tariffs unless special agreement to do so and a stipulated value of the articles are indorsed hereon.

Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignor shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges. Provided, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a notice of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the reconsignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

If a shipper or consignor of a shipment of property (other than a prepaid shipment) is also the consignee named in the bill of lading and, prior to the time of delivery, notifies, in writing, a delivering carrier by railroad (a) to deliver such property at destination to another party, (b) that such party is the beneficial owner of such property, and (c) that delivery is to be made to such party only upon payment of all transportation charges in respect of the transportation of such property, and delivery is made by the carrier to such party without such payment, such shipper or consignor shall not be liable (as shipper, consignor, consignee, or otherwise) for such transportation charges but the party to whom delivery is so made shall in any event be liable for transportation charges billed against the property at the time of such delivery, and also for any additional charges which may be found to be due after delivery of the property, except that if such party prior to such delivery has notified in writing the delivering carrier that he is not the beneficial owner of the property, and has given in writing to such delivering carrier the name and address of such beneficial owner, such party shall not be liable for any additional charges which may be found to be due after delivery of the property; but if the party to whom delivery is made has given to the carrier erroneous information as to the beneficial owner, such party shall nevertheless be liable for such additional charges. If the shipper or consignor has given to the delivering carrier erroneous information as to who the beneficial owner is, such shipper or consignor shall himself be liable for such transportation charges, notwithstanding the foregoing provisions of this paragraph and irrespective of any provisions to the contrary in the bill of lading or in the contract of transportation under which the shipment was made. The term "delivering carrier" means the line-haul carrier making ultimate delivery.

Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued on the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, in or in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section; and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to call at any port or ports, in or out of the customary route, to tow and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or the unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or inlets, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect and this bill of lading shall be enforceable according to its original tenor.

(Revised June 16, 1941)

449 92

551

Exact Copy Dec 10-57 L K Burroughs Agent

Over use in connection with I and Illinois Classification

rm Straight Bill of Lading, adopted by C... criterion, March 25, 1922, as amended August 1, ... 20, and June 16, 1941.)

11/17/57 SHEET

THIS MEMORANDUM is an acknowledgment that a Bill of Lading has been issued and the Original Bill of Lading or a copy or duplicate covering the property named herein, and is intended solely for filing or record.

Shipper's No.

Agent's No.

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading,

at Greenville Miss Dec 8th 1957

from Magnolia Soy Products Co

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to W.L. Richeson & Son (Mail or street address of consignee—For purposes of notification only.)

Destination New Orleans State of La County of

Route IC

Delivering Carrier Car Initial Ger Car No. 22061

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1000	bs Soybean Meal	100750	20½	
	For export		60/e	
	For Barking or Hawaiian Steamer			
	Booking No My 11225 1-B			
	Loaded in Accordance with Dec Amend			
	order # 874.			
		Date 12-4-57 Exhibit to D&S B		
	SLSC	Over ( ) Wilson		
		Init. ( ) Counsel		
		Del. ( ) Lee Thomas		
	Seals 29612 K - 12 K	Inspector		

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To be prepaid

Received $ 325.70 to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$

*If the shipment moves between two ports by a carrier by water, the law requires that the Bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

Copy

Magnolia Soy Products Co Shipper. J F Keys Agent

© Per Per

Permanent postoffice address of Shipper

Cordially Yours — Illinois Central

3

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CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the public authority, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehouseman, only, for loss, damage, or delay caused by fire occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for country damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, carrying freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the acts may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expense they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower value than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classification or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier issuing this bill of lading, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: Provided, That the carrier reimburses the claimant for the premium paid thereon.

Sec. 3. Except where such service is required as the result of carrier's negligence, all property shall be subject to necessary cooperage and baling at owner's cost. Each carrier over whose route cotton or cotton linters is to be transported hereunder shall have the privilege, at its own cost and risk, of compressing the same for greater convenience in handling or forwarding, and shall not be held responsible for deviation or unavoidable delays in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership (and prompt notice thereof shall be given to the consignor), and if so delivered shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 4. (a) Property not removed by the party entitled to receive it within the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided), after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination has been made, may be kept in vessel, car, depot, warehouse or place of delivery of the carrier, subject to the tariff charge for storage and to carrier's responsibility as warehouseman, only, or at the option of the carrier may be removed to and stored in a public or licensed warehouse at the place of delivery or other available place, at the cost of the owner, and there held without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including a reasonable charge for storage.

(b) Where nonperishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: Provided, That the carrier shall have first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped order notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: Provided, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: Provided, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier at its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expenses and of caring for and maintaining the property, if proper care of the same requires special expenses, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

Sec. 5. No carrier hereunder will carry or be liable in any way for any documents, specie, or for any articles of extraordinary value not specifically rated in the published classifications or tariffs unless a special agreement to do so and a stipulated value of the articles are indorsed hereon.

Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignor shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges. Provided, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the transportation of said property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment so reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a notice of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the reconsignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

If a shipper or consignor of a shipment of property (other than a prepaid shipment) is also the consignee named in the bill of lading and, prior to the time of delivery, notifies, in writing, a delivering carrier by railroad (a) to deliver such property at destination to another party, (b) that such party is the beneficial owner of such property, and (c) that delivery is to be made to such party only upon payment of all transportation charges in respect of the transportation of such property, and delivery is made by the carrier to such party without such payment, such shipper or consignor shall not be liable (as shipper, consignor, consignee, or otherwise) for such transportation charges but the party to whom delivery is so made shall in any event be liable for transportation charges billed against the property at the time of such delivery, and also for any additional charges which may be found to be due after delivery of the property, except that if such party prior to such delivery has notified in writing the delivering carrier that he is not the beneficial owner of the property, and has given in writing to such delivering carrier the name and address of such beneficial owner, such party shall not be liable for any additional charges which may be found to be due after delivery of the property, but if the party to whom delivery is made has given to the carrier erroneous information as to the beneficial owner, such party shall nevertheless be liable for such additional charges. If the shipper or consignor has given to the delivering carrier erroneous information as to who the beneficial owner is, such shipper or consignor shall himself be liable for such transportation charges, notwithstanding the foregoing provisions of this paragraph and irrespective of any provisions to the contrary in the bill of lading or in the contract of transportation under which the shipment was made. The term "delivering carrier" means the line-haul carrier making ultimate delivery.

Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued on the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, in or in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section; and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence in making the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to call at any port or ports, in or out of the customary route, to tow and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or the unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or lakes, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforceable according to its original tenor.

(*Revised June 15, 1941*)

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Exam Copy L R Burroughs Agent 11/17/55

THIS SHIPPING ORDER

Shipper's No.

Agent's No.

ILLINOIS CENTRAL RAILROAD COMPANY

RECEIVE, subject to the classifications and tariffs in effect on the date of the issue of this Shipping Order,

at Greenville Miss 12/10 1951, 19

from Magnolia Soy Prod Co

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to W L Lyons Brooks Inc (Mail or street address of consignee—For purposes of notification only.) Date 11-22-55

Destination New Orleans State of La Witness

Route IC Dlv. ( ) Counsel

Delivering Carrier Pd. ( ) County of

Dlv. ( ) Jay McPhee

Our Initial NH Our No. 33672

No. Packages	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*WEIGHT (Subject to Correction)	CLASS OR RATE	CHECK COLUMN
1000 Bx	Soybean Meal	100750	30¢	
	Ser expgn		6%	
	Ser Loading on Hawaiian Fisherman			
	Booking No NY 112251-6			
	Loaded in Accordance with ICC Service Order #874			
	AFTC			
	Seals 29618 K - 19K			
	Copy			

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

to be prepaid

Received $ 3.25.73 to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per

(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."

NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

per

Magnolia Soy Prod Co Shipper.

© Per BM

Permanent postoffice address of Shipper

Agent must detach last form to this Shipping Order and retain on the Original Bill of Lading.

Cordially Yours — Illinois Central R.R. Co.

by L R Burroughs

GAY

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CONTRACT TERMS AND CONDITIONS

Sec. 1. (a) The carrier or party in possession of any of the property herein described shall be liable as at common law for any loss thereof or damage thereto, except as hereinafter provided.

(b) No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto or delay caused by the act of God, the public enemy, the authority of law, or the act or default of the shipper or owner, or for natural shrinkage. The carrier's liability shall be that of warehousemen, only, for loss, damage, or delay caused by fire occurring after the expiration of the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided) after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination, or tender of delivery of the property to the party entitled to receive it, has been made. Except in case of negligence of the carrier or party in possession, (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stopped and held in transit upon the request of the shipper, owner, or party entitled to make such request, or resulting from a defect or vice in the property, or for country damage to cotton, or from riots or strikes.

(c) In case of quarantine the property may be discharged at risk and expense of owners into quarantine depot or elsewhere, as required by quarantine regulations or authorities, or for the carrier's dispatch at nearest available point in carrier's judgment, and in any such case carrier's responsibility shall cease when property is so discharged, or property may be returned by carrier at owner's expense to shipping point, earning freight both ways. Quarantine expenses of whatever nature or kind upon or in respect to property shall be borne by the owners of the property or be a lien thereon. The carrier shall not be liable for loss or damage occasioned by fumigation or disinfection or other acts required or done by quarantine regulations or authorities even though the same may have been done by carrier's officers, agents, or employees, nor for detention, loss, or damage of any kind occasioned by quarantine or the enforcement thereof. No carrier shall be liable, except in case of negligence, for any mistake or inaccuracy in any information furnished by the carrier, its agents, or officers, as to quarantine laws or regulations. The shipper shall hold the carriers harmless from any expense they may incur, or damages they may be required to pay, by reason of the introduction of the property covered by this contract into any place against the quarantine laws or regulations in effect at such place.

Sec. 2. (a) No carrier is bound to transport said property by any particular train or vessel, or in time for any particular market or otherwise than with reasonable dispatch. Every carrier shall have the right in case of physical necessity to forward said property by any carrier or route between the point of shipment and the point of destination. In all cases not prohibited by law, where a lower valuation than actual value has been represented in writing by the shipper or has been agreed upon in writing as the released value of the property as determined by the classification or tariffs upon which the rate is based, such lower value plus freight charges if paid shall be the maximum amount to be recovered, whether or not such loss or damage occurs from negligence.

(b) As a condition precedent to recovery, claims must be filed in writing with the receiving or delivering carrier, or carrier issuing this bill of lading, or carrier on whose line the loss, damage, injury or delay occurred, within nine months after delivery of the property (or, in case of export traffic, within nine months after delivery at port of export) or, in case of failure to make delivery, then within nine months after a reasonable time for delivery has elapsed; and suits shall be instituted against any carrier only within two years and one day from the day when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, no carrier hereunder shall be liable, and such claims will not be paid.

(c) Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance: Provided, That the carrier reimburses the claimant for the premium paid thereon.

Sec. 3. Except where such service is required as the result of carrier's negligence, all property shall be subject to necessary cooperage and baling at owner's cost. Each carrier over whose route cotton or cotton linters is to be transported hereunder shall have the privilege, at its own cost and risk, of compressing the same for greater convenience in handling or forwarding, and shall not be held responsible for deviations or unavoidable delays in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership (and prompt notice thereof shall be given to the consignor), and if so delivered shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 4. (a) Property not removed by the party entitled to receive it within the free time allowed by tariffs lawfully on file (such free time to be computed as therein provided), after notice of the arrival of the property at destination or at the port of export (if intended for export) has been duly sent or given, and after placement of the property for delivery at destination has been made, may be kept in vessel, car, depot, warehouse or place of delivery of the carrier, subject to the tariff charge for storage and to carrier's responsibility as warehousemen, only, or at the option of the carrier, may be removed to and stored in a public or licensed warehouse at the place of delivery or other available place, at the cost of the owner, and there held without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including a reasonable charge for storage.

(b) Where nonperishable property which has been transported to destination hereunder is refused by consignee or the party entitled to receive it, or said consignee or party entitled to receive it fails to receive it within 15 days after notice of arrival shall have been duly sent or given, the carrier may sell the same at public auction to the highest bidder, at such place as may be designated by the carrier: Provided, That the carrier shall have first mailed, sent, or given to the consignor notice that the property has been refused or remains unclaimed, as the case may be, and that it will be subject to sale under the terms of the bill of lading if disposition be not arranged for, and shall have published notice containing a description of the property, the name of the party to whom consigned, or, if shipped order notify, the name of the party to be notified, and the time and place of sale, once a week for two successive weeks, in a newspaper of general circulation at the place of sale or nearest place where such newspaper is published: Provided, That 30 days shall have elapsed before publication of notice of sale after said notice that the property was refused or remains unclaimed was mailed, sent, or given.

(c) Where perishable property which has been transported hereunder to destination is refused by consignee or party entitled to receive it, or said consignee or party entitled to receive it shall fail to receive it promptly, the carrier may, in its discretion, to prevent deterioration or further deterioration, sell the same to the best advantage at private or public sale: Provided, That if time serves for notification to the consignor or owner of the refusal of the property or the failure to receive it and request for disposition of the property, such notification shall be given, in such manner as the exercise of due diligence requires, before the property is sold.

(d) Where the procedure provided for in the two paragraphs last preceding is not possible, it is agreed that nothing contained in said paragraphs shall be construed to abridge the right of the carrier at its option to sell the property under such circumstances and in such manner as may be authorized by law.

(e) The proceeds of any sale made under this section shall be applied by the carrier to the payment of freight, demurrage, storage, and any other lawful charges and the expenses of notice, advertisement, sale, and other necessary expenses and of caring for and maintaining the property, if proper care of the same requires special expense, and should there be a balance it shall be paid to the owner of the property sold hereunder.

(f) Property destined to or taken from a station, wharf, or landing at which there is no regularly appointed freight agent shall be entirely at risk of owner after unloaded from cars or vessels or until loaded into cars or vessels, and, except in case of carrier's negligence, when received from or delivered to such stations, wharves, or landings shall be at owner's risk until the cars are attached to and after they are detached from locomotive or train or until loaded into and after unloaded from vessels.

Sec. 5. No carrier hereunder will carry or be liable in any way for any documents, specie, or for any articles of extraordinary value not specifically rated in the published classifications or tariffs unless a special agreement to do so and a stipulated value of the articles are indorsed hereon.

Sec. 6. Every party, whether principal or agent, shipping explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 7. The owner or consignee shall pay the freight and average, if any, and all other lawful charges accruing on said property; but, except in those instances where it may lawfully be authorized to do so, no carrier by railroad shall deliver or relinquish possession at destination of the property covered by this bill of lading until all tariff rates and charges thereon have been paid. The consignee shall be liable for the freight and all other lawful charges, except that if the consignor stipulates, by signature, in the space provided for that purpose on the face of this bill of lading that the carrier shall not make delivery without requiring payment of such charges and the carrier, contrary to such stipulation, shall make delivery without requiring such payment, the consignor (except as hereinafter provided) shall not be liable for such charges. Provided, that, where the carrier has been instructed by the shipper or consignor to deliver said property to a consignee other than the shipper or consignor, such consignee shall not be legally liable for transportation charges in respect of the transportation of said property (beyond those billed against him at the time of delivery for which he is otherwise liable) which may be found to be due after the property has been delivered to him, if the consignee (a) is an agent only and has no beneficial title in said property, and (b) prior to delivery of said property has notified the delivering carrier in writing of the fact of such agency and absence of beneficial title, and, in the case of a shipment reconsigned or diverted to a point other than that specified in the original bill of lading, has also notified the delivering carrier in writing of the name and address of the beneficial owner of said property; and, in such cases the shipper or consignor, or, in the case of a shipment so reconsigned or diverted, the beneficial owner, shall be liable for such additional charges. If the consignee has given to the carrier erroneous information as to who the beneficial owner is, such consignee shall himself be liable for such additional charges. On shipments reconsigned or diverted by an agent who has furnished the carrier in the reconsignment or diversion order with a statement of agency and the proper name and address of the beneficial owner, and where such shipments are refused or abandoned at ultimate destination, the said beneficial owner shall be liable for all legally applicable charges in connection therewith. If the reconsignor or diverter has given to the carrier erroneous information as to who the beneficial owner is, such reconsignor or diverter shall himself be liable for all such charges.

If a shipper or consignor of a shipment of property (other than a prepaid shipment) is also the consignee named in the bill of lading and, prior to the time of delivery, notifies, in writing, a delivering carrier by railroad (a) to deliver such property at destination to another party, (b) that such party is the beneficial owner of such property, and (c) that delivery is to be made to such party only upon payment of all transportation charges in respect of the transportation of such property, and delivery is made by the carrier to such party without such payment, such shipper or consignor shall not be liable (as shipper, consignor, consignee, or otherwise) for such transportation charges but the party to whom delivery is so made shall in any event be liable for transportation charges billed against the property at the time of such delivery, and also for any additional charges which may be found to be due after delivery of the property, except that if such party prior to such delivery has notified in writing the delivering carrier that he is not the beneficial owner of the property, and has given in writing to such delivering carrier the name and address of such beneficial owner, such party shall not be liable for any additional charges which may be found to be due after delivery of the property, but if the party to whom delivery is made has given to the carrier erroneous information as to the beneficial owner, such party shall nevertheless be liable for such additional charges. If the shipper or consignor has given to the delivering carrier erroneous information as to who the beneficial owner is, such shipper or consignor shall himself be liable for such transportation charges, notwithstanding the foregoing provisions of this paragraph and irrespective of any provisions to the contrary in the bill of lading or in the contract of transportation under which the shipment was made. The term "delivering carrier" means the line-haul carrier making ultimate delivery.

Nothing herein shall limit the right of the carrier to require at time of shipment the prepayment or guarantee of the charges. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Where delivery is made by a common carrier by water the foregoing provisions of this section shall apply, except as may be inconsistent with Part III of the Interstate Commerce Act.

Sec. 8. If this bill of lading is issued on the order of the shipper, or his agent, in exchange or in substitution for another bill of lading, the shipper's signature to the prior bill of lading as to the statement of value or otherwise, or election of common law or bill of lading liability, in or in connection with such prior bill of lading, shall be considered a part of this bill of lading as fully as if the same were written or made in or in connection with this bill of lading.

Sec. 9. (a) If all or any part of said property is carried by water over any part of said route, and loss, damage or injury to said property occurs while the same is in the custody of a carrier by water the liability of such carrier shall be determined by the bill of lading of the carrier by water (this bill of lading being such bill of lading if the property is transported by such water carrier thereunder) and by and under the laws and regulations applicable to transportation by water. Such water carriage shall be performed subject to all the terms and provisions of, and all the exemptions from liability contained in the Act of the Congress of the United States, approved on February 13, 1893, and entitled "An act relating to the navigation of vessels, etc.," and of other statutes of the United States according carriers by water the protection of limited liability, as well as the following subdivisions of this section, and to the conditions contained in this bill of lading not inconsistent with this section, when this bill of lading becomes the bill of lading of the carrier by water.

(b) No such carrier by water shall be liable for any loss or damage resulting from any fire happening to or on board the vessel, or from explosion, bursting of boilers or breakage of shafts, unless caused by the design or neglect of such carrier.

(c) If the owner shall have exercised due diligence in making the vessel in all respects seaworthy and properly manned, equipped, and supplied, no such carrier shall be liable for any loss or damage resulting from the perils of the lakes, seas, or other waters, or from latent defects in hull, machinery, or appurtenances whether existing prior to, at the time of, or after sailing, or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And, when for any reason it is necessary, any vessel carrying any or all of the property herein described shall be at liberty to sail in any port or ports, in or out of the customary route, to tow and be towed, to transfer, trans-ship, or lighter, to load and discharge goods at any time, to assist vessels in distress, to deviate for the purpose of saving life or property, and for docking and repairs. Except in case of negligence such carrier shall not be responsible for any loss or damage to property if it be necessary or is usual to carry the same upon deck.

(d) General Average shall be payable according to the York-Antwerp Rules of 1924, Sections 1 to 15, inclusive, and Sections 17 to 22, inclusive, and as to matters not covered thereby according to the laws and usages of the Port of New York. If the owners shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation, or in the management of the vessel, or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, whether existing at the time of shipment or at the beginning of the voyage (provided the latent or other defects or the unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees and/or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo, and shall contribute with the shipowner in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

(e) If the property is being carried under a tariff which provides that any carrier or carriers party thereto shall be liable for loss from perils of the sea, then as to such carrier or carriers the provisions of this section shall be modified in accordance with the tariff provisions, which shall be regarded as incorporated into the conditions of this bill of lading.

(f) The term "water carriage" in this section shall not be construed as including lighterage in or across rivers, harbors, or lakes, when performed by or on behalf of rail carriers.

Sec. 10. Any alteration, addition, or erasure in this bill of lading which shall be made without the special notation hereon of the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforceable according to its original tenor.

(Revised June 18, 1941)

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EXHIBIT NO. D 16.

New York:

We also respectfully request this Honorable Court to take judicial notice of the law of the State of New York whereby, by the undisputed evidence, the contract of sale by the Defendant of its product, trichloroethylene, was made, either on the bilateral contract theory of where the confirmation was released or on the unilateral contract theory of where the goods were shipped F.O.B. carrier (New York City or Niagara Falls—both of New York State).

The Court's attention is called to the leading cases of Chysky v. Drake Brothers Company, 235 N.Y. 468, 139 N.E. 576, 27 A.L.R. 1533 (1923); Timpson v. Marshall, Meadows & Steward, 101 N.Y.S.2d 583, 198 Misc. 103 (1950); Day v. Grand Union Co., 113 N.Y.S.-2d 436 (1952); and Blessington v. McCrory Stores Corp., 109 N.Y.S.2d 719, affirmed 111 N.E.2d 421 (1953).

An excellent statement of the New York law appears in the case of Heggblom v. John Wannamaker, New York, 36 N.W.S.2d 777, 178 Misc. 792 (1942), as follows:

"The amended complaint does not allege that either of the plaintiffs purchased the exerciser from the defendant and in the absence of an allegation of privity of contract between plaintiffs and defendant, the first cause of action based on breach of warranty cannot be sustained. 'Warranty is an incident of a sale. * * * There can be no warranty where there is no privity of contract.' Turner v. Edison Storage Bat-

tery Co., 248 N.Y. 73, 161 N.E. 423. 'The general rule is that a manufacturer or seller of food, or other articles of personal property, is not liable to third persons, under an implied warranty, who have no contractual relations with him. The reason for this rule is that privity of contract does not exist between the seller and such third persons, and unless there be privity of contract, there can be no implied warranty. The benefit of a warranty, either express or implied, does not run with a chattel on its resale, and in this respect is unlike a covenant running with the land so as to give a subsequent purchaser a right of action against the original seller on a warranty.' "

The premises sought to be established is that under the law of the place where the contract was made—which controls the incidents thereof as an elementary principle of law—privity of contract is necessary before contract rights, including warranty obligations, can arise or exist.

The Court's attention is also respectfully directed to the fact that the State of New York—contrary to the majority rule—even requires privity in cases involving products designed for human consumption, thus emphasizing the primary importance that the Courts of New York have given to the element of privity.